



California ISO

California Independent System Operator Corporation

August 21, 2025

The Honorable Debbie-Anne A. Reese
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

**Re: California Independent System Operator Corporation
Docket No. ER25-____-000**

Tariff Clarifications Amendment

Dear Secretary Reese:

The California Independent System Operator Corporation (CAISO)¹ hereby submits revisions to clarify several areas of the CAISO tariff.² As part of its regular business practice to improve its tariff, the CAISO periodically identifies changes of an administrative or ministerial nature. The tariff revisions proposed in this filing do not change established practices or materially affect the rights and obligations of the CAISO or its market participants. Instead, they seek to correct errors, clarify the description of existing practices, and resolve ambiguities. The Commission has accepted similar filings in prior years.³

Although the CAISO submits these clarifications in the same filing, each change is severable from the others and is just and reasonable on its own. The CAISO respectfully requests that the Commission issue an order accepting these changes within 90 days, by November 19, 2025.

¹ Capitalized terms not otherwise defined herein have the meanings set forth in the Master Definitions Supplement, Appendix A to the currently effective CAISO tariff.

² The CAISO submits this filing pursuant to section 205 of the Federal Power Act (FPA), 16 U.S.C. § 824d, and Part 35 of the Commission's Regulations, 18 C.F.R. Part 35. Capitalized terms not otherwise defined herein have the meanings set forth in Appendix A to the CAISO tariff, and references herein to specific tariff sections are references to sections of the CAISO tariff unless otherwise specified.

³ See e.g. *California Independent System Operator Corp.*, Letter Order, Docket No. ER24-2687-000 (Dec. 4, 2024).; *California Independent System Operator Corp.*, Letter Order, Docket No. ER23-2557-000 (Oct. 24, 2023).

I. Proposed Tariff Modifications

Attachment A to this filing contains a matrix identifying each of the proposed tariff amendments. This attachment identifies each tariff section the CAISO proposes to change and provides an explanation for the proposed change. The CAISO describes several of these changes below to provide additional context.

A. Aligning Tariff Language with Operational Practices for Securing Voltage Support from Generating Units

The CAISO proposes to modify language in sections 8.3.8 and 34.18.2.4 to delete references to certifying resources to provide voltage support or undertaking a competitive procurement process to secure voltage support. Under the CAISO tariff, resources now provide voltage support within a standard power factor range as a condition of interconnection.⁴ The CAISO compensates resources for the provision of reactive power outside of their standard power factor range when the CAISO directs a resource to reduce its real power output to provide reactive power. This compensation reflects an opportunity cost of reducing the resource's energy output.⁵ This framework is consistent with Commission requirements.⁶

The language the CAISO proposes to delete from tariff section 8.3.8 has no practical force or effect in the context of the transmission service the CAISO provides and is consistent with prior tariff clarifications approved by the Commission. In Commission docket ER13-1274, the CAISO proposed to modify its tariff to delete tariff provisions relating to certification of resources to provide voltage support on the grounds that the CAISO does not certify resources to provide voltage support nor does the CAISO market procure voltage support as an ancillary service pursuant to a competitive process.⁷ The Commission accepted these changes.

⁴ CASIO tariff section 8.2.3.3.

⁵ CAISO tariff section 8.2.3.3.

⁶ Order No. 904, *Compensation for Reactive Power Within the Standard Power Factor Range*, 189 FERC ¶ 61,034 (2024).

⁷ *California Indep. System Operator Corp.*, 143 FERC ¶ 61,228 (2013) at P 20. In that order, the Commission stated "[i]f the CAISO has new information suggesting that a long-term solution for procuring voltage support outside of exceptional dispatch is no longer necessary, CAISO should file an updated report with the Commission. The CAISO has since held a stakeholder process regarding procurement of voltage support. More information about this initiative is available on the CAISO's website: <https://www.caiso.com/library/reactive-powerrequirements-and-financial-compensation>. In addition, the Commission has adopted Order No. 904 that governs requirements and compensation for resources providing voltage support.

In this filing, the CAISO proposes to remove similar language, namely references to resources certified to provide voltage support as well as the use of a computerized merit order stack to procure additional voltage support from resources outside of a standard power factor range. Again, the CAISO does not certify resources to provide voltage support. It is a condition of interconnection and providing energy to the CAISO system. Moreover, this procurement happens extremely rarely and occurs to meet a localized need for voltage support. The localized nature of reactive support and the use of an opportunity cost payment resulting from reducing energy output do not support using a computerized cost minimization process. Nevertheless, based on input from stakeholders, the CAISO proposes to maintain the principle of selecting the least costly generating unit to provide additional voltage support, if feasible to do so. The Commission should accept these changes because they clarify any ambiguities between the tariff and the CAISO's current practices and are consistent with relevant Commission orders.

B. Clarifying the Resource Adequacy Cure Period Process

The CAISO proposes coordinated revisions to sections 40.2.2.4(c), 40.4.7.1(c), and 40.7(a) to reflect current capability of the CAISO's Customer Interface for Resource Adequacy (CIRA).⁸ The CAISO tariff establishes a framework for suppliers and load serving entities to make monthly resource adequacy showings in advance of a resource adequacy month.⁹ Under the rules for resource adequacy showings, resource adequacy suppliers and load serving entities may cure their supply plans and resource adequacy plans between 45 and 30 days before a resource adequacy month. This process provides a mechanism to address outages or other events that may require changes to these plans. When the CAISO implemented the resource adequacy framework, limitations in system functionality required a detailed, process-heavy approach to reconciling discrepancies between supply plans of resource adequacy sellers and resource adequacy plans of load serving entities (buyers). Today, CIRA provides an automated, near-instantaneous validation. CIRA also provides notices of any discrepancies to scheduling coordinators for sellers and buyers of resource adequacy capacity. This interface eliminates obsolete procedural steps and preserves the stability of scheduling coordinators who may still modify supply plans and resource adequacy plans between T-45 and T-30. Thereafter, the CAISO locks the plans unless a scheduling coordinator demonstrates good cause for a late change. The changes included in this filing clarify the ability of scheduling coordinators to revise plans to resolve discrepancies or adjust capacity during the cure period without the requirement of a specific triggering event to allow for such changes. These revisions reflect existing functionality in

⁸ CIRA is the tool the CAISO uses to manage compliance and match supply plans of sellers with resource adequacy plans of buyers.

⁹ CAISO tariff section 40.2.

CIRA that did not exist at the start of the resource adequacy program when more time and work was necessary to cross-validate resource adequacy plans with supply plans.

During the CAISO's stakeholder process to discuss these changes, one stakeholder raised concerns that the changes may provide too much discretion to a supplier to remove resource adequacy capacity from a supply plan between 45 and 30 days in advance of a resource adequacy month. The stakeholder asked how the CAISO would resolve discrepancies between a supply plan and a resource adequacy plan of a load serving entity if this were to occur. As is the case today, the CAISO will review resource adequacy and supply plans after the T-30 cure period ends. The CAISO expects that suppliers and load serving entities will coordinate any changes to their bilateral arrangements during the cure period. CIRA will also provide these entities with notice of discrepancies between supply plans and resource adequacy plans should they arise quickly after submissions. In the event of a discrepancy that arises immediately before the end of the cure period and which a load serving entity cannot resolve before the cure period ends, the CAISO tariff has a good cause exception that may apply depending on the facts and circumstances.

C. Clarifying Eligibility for Resources to Register as Multi-Stage Generators

In 2014, the CAISO implemented market rules to require certain resources that are operable in multiple configurations to register as multi-stage generation resources.¹⁰ By modeling the distinct operating modes of generating units with multiple configurations, the CAISO can better model complex operating characteristics of these resources. In this filing, the CAISO proposes revisions to sections 27.8.1 to clarify market participation rules for Qualifying Facilities that have the characteristics of multi-stage generating resources. Specifically, the changes to section 27.8.1 clarify that scheduling coordinators for regulatory must-take generation may, but are not required to, register as multi-stage generating resources.¹¹ The changes to section 27.8.1 also provide that scheduling coordinators for resources that do not satisfy requirements of multi-stage generators as defined by the tariff may not register their resources as multi-stage generators. The Commission should accept these changes because they are consistent with how the CAISO has administered its tariff rules since 2014

¹⁰ *California Independent System Operator Corp.*, 146 FERC ¶ 61,191 (2014).

¹¹ The CAISO tariff defines regulatory must take generation to mean: "Generation from the following resources that the relevant Scheduling Coordinator schedules directly with the CAISO: (1) Generation from Generating Units subject to (a) an Existing QF Contract or an Amended QF Contract, or (b) a QF power purchase agreement for a QF 20 MW or smaller pursuant to a mandatory purchase obligation as defined by federal law; (2) Generation delivered from a CHP Resource needed to serve its host thermal requirements up to RMTMax in any hour; and (3) Generation from nuclear units. (See Appendix A to CAISO tariff.)

and eliminate any perceived ambiguity associated with eligibility to register resources as multi-stage generating resources.

D. Clarifying Authority to Make Adjustments in the Residual Unit Commitment Process

As part of the day-ahead market processes, the CAISO administers a residual unit commitment (RUC) process after the integrated forward market. RUC clears additional capacity to ensure sufficient supply to meet the CAISO's forecast of demand.¹² As part of establishing a RUC procurement target in any given hour, the market relies on the next day's hourly CAISO forecast of CAISO demand less the energy scheduled in the integrated forward market, and reflects other adjustments the CAISO makes as appropriate.¹³ CAISO operators review these adjustments and have discretion whether to make them.¹⁴

The CAISO proposes several revisions throughout sections 31.5.3.1 to 31.5.3.1.6 to clarify the discretionary nature of adjustments made to the procurement target in RUC and the demand forecast utilized in RUC. These changes are consistent with discretionary authority of the CAISO to accept, modify, or reject adjustments in RUC based on good utility practice.¹⁵ The changes remove any perceived ambiguity that the CAISO must make RUC adjustments. For example: in several sections, the CAISO proposes to replace the word *shall* with the word *may* to confirm that the CAISO is authorized, but not required, to make certain adjustments in RUC. These revisions do not reflect a change in practice.

II. Stakeholder Process

The CAISO initiated a process to obtain stakeholder input concerning the proposed tariff changes in this filing on July 2, 2025. The CAISO received written comments on the proposed changes and held a conference call with stakeholders to discuss stakeholder concerns, similar to the approach taken in previous yearly filings.¹⁶ The CAISO greatly appreciates stakeholders' ongoing efforts to help clarify the tariff.

¹² CAISO tariff section 31.5.

¹³ *Id.*

¹⁴ CAISO tariff section 35.5.3.1

¹⁵ *Id.*

¹⁶ A record of the CAISO's 2025 stakeholder process and comments received is available on the CAISO's website:

<https://stakeholdercenter.caiso.com/RecurringStakeholderProcesses/Tariff-Clarification-Filings-2025>.

III. Effective Date

The CAISO respectfully requests an effective date for the tariff changes in this filing of November 19, 2025.

IV. Communications

Under Rule 203(b)(3),¹⁷ the CAISO respectfully requests that all correspondence and other communications about this filing be served upon:

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V. Service

The CAISO has served copies of this transmittal letter, and all attachments, on the California Public Utilities Commission, the California Energy Commission, and parties with effective scheduling coordinator service agreements under the CAISO tariff. In addition, the CAISO is posting this transmittal letter and all attachments on the CAISO Website.

VI. Contents of this filing

Besides this transmittal letter, this filing includes these attachments:

Attachment A	Matrix listing and describing each proposed tariff change;
Attachment B	Clean CAISO Tariff sheets incorporating these requested tariff changes, and
Attachment C	Redlined document showing the revisions proposed in this tariff amendment.

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18 C.F.R. § 385.203(b)(3).

VII. Conclusion

In this filing, the CAISO proposes amendments to its tariff to correct errors, clarify the description of existing practices, and resolve ambiguities. The CAISO respectfully requests that the Commission accept these tariff amendments with an effective day of November 19, 2025.

Please do not hesitate to contact the undersigned if you have any questions.

Respectfully submitted,

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Attachment A – Matrix of Changes
2025 Summer Tariff Clarifications Filing
California Independent System Operator Corporation
August 21, 2025



Section	Proposed Redlines	Reason for Change
Sec 8.3.8, Second and Third Sentences	The CAISO shall select Participating Generators' Generating Units which have been certified for Voltage Support to provide this additional Voltage Support. Subject to any locational requirements <u>and if feasible</u> , the CAISO shall select the least costly Generating Units from a computerized merit order stack to back down to produce additional Voltage Support in each location where Voltage Support is needed.	This revision aligns the tariff language with current CAISO practices, which do not involve certifying resources to provide voltage support as an ancillary service or operating a market-based auction process for voltage support. The changes remove outdated or misleading references to certification and clarify that the CAISO selects and dispatches resources for voltage support based on localized reliability needs - not through a merit-based bidding process. These edits are consistent with the clarification accepted by FERC in Docket ER13-1274 and improve clarity by reflecting how voltage support is operationally managed today.



Sec 11.29.2	<p>11.29.2 One Agreement Will Govern All Settlement, Billing, and Payment</p> <p>This Section applies to every Business Associate that is a party to more than one agreement with the CAISO that governs settlement, billing and payment. These agreements are: Scheduling Coordinator Agreements, EIM Entity Scheduling Coordinator Agreements (regardless whether the addendum for EDAM is effective), <u>EIM Participating Resource Scheduling Coordinator Agreements</u>, CRR Entity Agreements, the Transmission Control Agreement (for Participating Transmission Owners) and Black Start Agreements. Collectively, these agreements, including any successors to these agreements, are referred to in this Section as “Billing and Payment Agreements.” One of the Billing and Payment Agreements between the Business Associate and the CAISO will be designated to govern all CAISO settlements, whether those settlements are under this Section 11, Section 29.11 or Section 33.11, and all billing and payment arising from those settlements, including but not limited to payment and collection of all amounts due from the Business Associate to the CAISO and all amounts due from the CAISO to the Business Associate under all Billing and Payment Agreements between the Business Associate and the CAISO. For avoidance of doubt, Scheduling Coordinators, Candidate CRR Holders, CRR Holders, CRR Entities, Participating Transmission Owners and Black Start Generators that are party to Black Start Agreements are obligated to pay all Invoices and entitled to receive payment on Payment Advices issued to the Business Associate pursuant to Section 11, Section 29.11 or Section 33.11. The designated agreement will be the agreement that appears first on this list:</p> <ul style="list-style-type: none">a) Transmission Control Agreement;b) Scheduling Coordinator Agreement;c) EIM Scheduling Coordinator Agreement;d) <u>EIM Participating Resource Scheduling Coordinator Agreements</u>;	<p>This revision corrects a tariff provision adopted as part of Phase I of the Billing Payment and Credit Enhancements initiative. Section 11.29.4 provides that when a market participant has multiple agreements that could govern its financial relationship with CAISO, tariff rules will designate one of those agreements as controlling with respect to settlement, billing and payment. This designation is intended to reduce the risk of further payment defaults after a bankruptcy filing by expanding CAISO’s ability to employ the bankruptcy law doctrine of “recoupment” (in contrast to “setoff”) to collect unpaid amounts. In addition, it is meant to reduce the risk of unnecessary litigation in a bankruptcy court. This revision corrects a tariff provision accepted in docket ER25-87 - adopted during Phase I of the Billing Payment and Credit Enhancements.</p> <p>Section 11.29.2 provides that when a market participant has multiple agreements that could govern its financial relationship with CAISO, tariff rules will designate one of those agreements as controlling with respect to settlement, billing and payment. This designation is intended to reduce the risk of further payment defaults after a bankruptcy filing by expanding CAISO’s ability to employ the bankruptcy law</p>
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	<p>e) (d) CRR Entity Agreement; f) (e) Black Start Agreement.</p> <p>If the Business Associate is party to more than one agreement of the same type, such as two or more Scheduling Coordinator Agreements, then the first-executed agreement of that type is designated. Nothing in this Section shall limit or otherwise affect the obligation of the Business Associate to comply with the terms of every Billing and Payment Agreement to which it is a party.</p>	<p>doctrine of “recoupment” (in contrast to “setoff”) to collect unpaid amounts. In addition, it is meant to reduce the risk of unnecessary litigation in a bankruptcy court. The new rule omitted one type of agreement that should have been listed – the EIM Participating Resource Scheduling Coordinator Agreement. See Appendix B.20 to the CAISO tariff. The CAISO proposes this change to ensure that settlements under such agreements are included in the new rule.</p>
<p>Sec 11.29.7.1, Second to last sentence</p>	<p>The CAISO will issue a Market Notice if a <u>ny Unscheduled</u> Recalculation Settlement Statement T+11M, Recalculation Settlement Statement T+21M, Recalculation Settlement Statement T+24M, or any Unscheduled Recalculation Settlement Statement pursuant to Section 11.29.7.3 is issued for a Trading Day.</p>	<p>This revision removes the requirement to issue Market Notices for scheduled recalculation settlement statements, which participants already receive through the Market Settlement Process’s quarterly schedule. The change eliminates redundancy and retains the notice requirement only for unscheduled recalculations, where notice remains appropriate.</p>

Sec 24.6, Fourth sentence	<p>The Approved Project Sponsor shall not sell, assign or otherwise transfer its rights to finance, construct and own the needed transmission solution, or any element thereof, before the facilities have been energized and, if applicable, turned over to the CAISO's Operational Control unless the CAISO has not approved such proposed transfer, which approval shall not be unreasonably withheld.</p>	<p>This revision corrects a grammatical error. The transfer of an Approved Project Sponsors's rights to finance, construct and own a needed transmission solution, or any element thereof, before the facilities have been energized requires CAISO approval and the inclusion of the adverb "not" in this sentence is an error. This edit is also consistent with a tariff change submitted in docket number ER13-103-005 but was overridden by an overlapping filing.</p>
Sec 27.8.1, First Sentence	<p>27.8.1 Registration and Qualification <u>With the exception of Regulatory Must-Take Generation,</u> Scheduling Coordinators responsible for resources that meet the definition of a Multi-Stage Generating Resource based on their Master File registered characteristics must register such resources with the CAISO as Multi-Stage Generating Resources as further discussed in this Section, and must comply with all requirements that apply to such resources specified in the CAISO Tariff. <u>Scheduling Coordinators for Regulatory Must-Take Generation may, but are not required to, register such resources with the CAISO as Multi-Stage Generating Resources. Scheduling Coordinators for resources that do not meet the definition of a Multi-Stage Generating Resource are not permitted to register such resources with the CAISO as Multi-Stage Generating Resources.</u></p>	<p>This revision clarifies that registration of multi-stage generating resources is mandatory for qualifying resources and reflects CAISO's current operational practices. The change ensures consistent treatment of resources and aligns the tariff with business rules adopted following the transition from optional to mandatory registration for multi-stage generating resources.</p>

Sec 27.8.2, First Sentence	27.8.2 Information Requirements As part of the registration process described in Section 27.8.1, the Scheduling Coordinators for Generating Units <u>registering that seek to qualify</u> as Multi-Stage Generating Resources must submit to the CAISO a Transition Matrix, which contains the Transition Costs and operating constraints associated with MSG Transitions.	This revision clarifies that multi-stage generating registration is mandatory for qualifying resources and reflects the CAISO's current operational practices. The change ensures consistent treatment of resources and aligns the tariff with business rules adopted following the transition from optional to mandatory registration for multi-stage resources.
Sec 27.13, Second to last sentence	Scheduling Coordinators may not offer or self provide Ancillary Services into the CAISO's Markets or receive Uncertainty Awards from Generating Units that are subject to Aggregate Capability Constraints until the CAISO issues a Market Notice stating this restriction will no longer apply.	This revision removes outdated language prohibiting resources subject to aggregate capability constraints from participating in ancillary services and receiving uncertainty awards. The CAISO lifted this restriction via a Market Notice on December 15, 2021, and the change aligns the tariff with current market operations.
Sec 31.5.3.1, Second Sentence	The CAISO Operator may shall accept, modify, or reject such adjustments based on Good Utility Practice.	This revision clarifies that the CAISO's authority to adjust residual unit commitment procurement targets based on Good Utility Practice is permissive. The change eliminates ambiguity and reflects the discretion the CAISO uses when evaluating demand forecasts.



Sec 31.5.3.1.2, First Sentence	The CAISO <u>may adjust the CAISO Forecast of CAISO Demand</u> to shall account for Demand response that is clearly communicated to the CAISO as certain to be curtailed for the next Trading Day. <u>Such adjustments may be made</u> only for the two following types of Demand response: (1) Demand response triggered by a staged System Emergency event; and (2) Demand response that is triggered by a price or an event known in advance.	This revision clarifies that the CAISO's authority to adjust residual unit commitment procurement targets based on Good Utility Practice is permissive. The change eliminates ambiguity and reflects the discretion the CAISO uses when evaluating demand forecasts.
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Sec 31.5.3.1.5, First and Fifth Sentences	<p>In order to avoid over procurement of RUC, the CAISO may^{shall}, using a similar-day approach, estimate the RTM Self-Schedules for resources that usually submit RTM Self-Schedules that are greater than their Day-Ahead Schedules. The CAISO Operator may set the length of the Self-Schedule moving average window. Initially this moving average window shall be set by default to seven (7) days; in which case the weekday estimate is based on the average of five (5) most recent weekdays and the weekend estimate is based on the average of the two (2) most recent weekend days. To the extent weather conditions differ significantly from the historical days, additional adjustment may be necessary. After determining the estimate of Real-Time Self-Schedules, using a similar day forecasting approach, the CAISO may^{adjusts} the CAISO Forecast of CAISO Demand of a RUC Zone based on the forecasted quantity changes in Supply as a result of Self-Schedules submitted in the RTM.</p>	<p>This revision clarifies that the CAISO's authority to adjust residual unit commitment procurement targets based on Good Utility Practice is permissive, not mandatory. The change eliminates ambiguity and reflects the discretion the CAISO uses when evaluating demand forecasts.</p>
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Sec 31.5.3.1.6	While the CAISO intends to procure one hundred percent (100%) of its forecasted Operating Reserve requirement in the IFM based on the CAISO Forecast of CAISO Demand as specified in Section 8.3.1, the CAISO may shall make adjustments to the CAISO Forecast of CAISO Demand used in RUC to ensure sufficient capacity is available or resources committed in cases that the CAISO is unable to procure one hundred percent (100%) of its forecasted Operating Reserve requirement in the IFM; provided, however, that the CAISO shall not procure specific Ancillary Services products in RUC, nor will the RUC optimization consider AS-related performance requirements of available capacity.	This revision clarifies that the CAISO's authority to adjust residual unit commitment procurement targets based on Good Utility Practice is permissive, not mandatory. The change eliminates ambiguity and reflects the discretion the CAISO uses when evaluating demand forecasts.
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<p>Sec 34.18.2.4</p>	<p>34.18.2.4 Voltage Support</p> <p>(a) Voltage Support provided from Generating Units shall meet the standards specified in this CAISO Tariff and Part E of Appendix K.</p> <p>(b a) The CAISO may Dispatch Generating Units to increase or decrease MVar output within power factor limits established pursuant to Section 8.2.3.3 (or within other limits specified by the CAISO in any exemption granted pursuant to Section 8.2.3.3) at no cost to the CAISO when required for System Reliability.</p> <p>(e b) The CAISO may Dispatch each Generating Unit to increase or decrease MVar output outside of established power factor limits, but within the range of the Generating Unit's capability curve, at a price calculated in accordance with the CAISO Tariff.</p> <p>(d-c) If Voltage Support is required in addition to that provided pursuant to Section 34.18.2.4 (a b) and (b e), the CAISO will reduce output of Participating Generators certified in accordance with Appendix K. The CAISO will select Participating Generators in the vicinity where such additional Voltage Support is required.</p> <p>(e-d) The CAISO will monitor voltage levels at Interconnections to maintain them in accordance with the applicable inter-Balancing Authority Area agreements.</p>	<p>This revision aligns the tariff language with current CAISO practices, which do not involve certifying resources to provide voltage support as an ancillary service or operating a market-based auction process for voltage support. The changes remove outdated or misleading references to certification and clarify that CAISO selects and dispatches resources for voltage support based on localized reliability needs - not through a merit-based bidding process. These edits are consistent with the clarification accepted by FERC in Docket ER13-1274 and improve clarity by reflecting how voltage support is operationally managed today.</p>
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Sec 40.2.2.4 (c)	<p>(c) The Scheduling Coordinator for a Load Serving Entity or CPE may submit at any time from 45 days through 30 days in advance of the relevant month, a revision to its monthly Resource Adequacy Plan to correct either: (i) a discrepancy between its monthly Resource Adequacy Plan and the monthly Supply Plan of a Resource Adequacy Resource providing that Load Serving Entity or CPE with Resource Adequacy Capacity, as provided in Section 40.7(b); or (ii) a deficiency in how much Resource Adequacy Capacity was provided on the monthly Resource Adequacy Plan. <u>From 45 days through 30 days in advance of the relevant month, the Scheduling Coordinator for a Load Serving Entity or CPE also may revise its Resource Adequacy Plan voluntarily either to add additional Resource Adequacy Capacity or remove Resource Adequacy Capacity regardless of a discrepancy or deficiency that existed as of 45 days in advance of the relevant month.</u> The CAISO will not accept any revisions to a monthly Resource Adequacy Plan from 30 days in advance of the relevant month through the end of the month, unless the Scheduling Coordinator for the Load Serving Entity or CPE demonstrates good cause for the change and explains why it was not possible to submit the change earlier.</p>	<p>This revision clarifies the CAISO's established practice for Resource Adequacy and Supply Plan corrections between T-45 and T-30. The changes reflect the capabilities of the Customer Interface for Resource Adequacy, which enables immediate discrepancy validation and notification, and removes outdated procedural constraints.</p>
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Sec 40.4.3, New Item 7	<u>(7) For a resource with contractual Resource Adequacy Capacity falling in a Forbidden Operating Region or between two MSG Configurations, make available to the CAISO for commitment or dispatch the capacity falling at the upper bound of the Forbidden Operation Region or the lower bound of MSG Configuration above the RA capacity, respectively, subject to Section 11.8 provisions for Bid Cost Recovery, so that the resource's Resource Adequacy Capacity can be utilized as required by this CAISO Tariff.</u>	This revision clarifies rules for making available Resource Adequacy capacity within a forbidden operating region or between multi-state generator configurations for commitment and dispatch. This formalizes existing operational treatment consistent with existing tariff section 40.4.3(6).
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<p>Sec 40.4.6.2.2.1</p>	<p>40.4.6.2.2.1 Eligibility Registration for Bilateral Import Capability Transfers [Not Used] To be eligible to engage in any bilateral assignment, sale, or transfer of Remaining Import Capability California Independent System Operator Corporation Fifth Replacement Electronic Tariff June 25, 2024 Section 40 under Step 8 of Section 40.4.6.2.1 or Section 40.4.6.2.2.2 or transfer of Existing Contract Import Capability, Pre-RA Import Commitment Capability and New Use Import Commitment Capability under Section 40.4.6.2.2.2, a Load Serving Entity or other Market Participant must provide the CAISO through the Import Capability Transfer Registration Process the following information: (a) Name of the Load Serving Entity or Market Participant (b) E-mail contact information The CAISO will post to the CAISO Website the information received under this Section on a monthly basis in accordance with the schedule set forth in the Business Practice Manual. Any assignment, sale, or transfer of Existing Contract Import Capability, Pre-RA Import Commitment Capability, New Use Import Commitment Capability or Remaining Import Capability may only be made by or to a Load Serving Entity or Market Participant whose information received under this Section has been posted to the CAISO Website prior to the date of the assignment, sale, or transfer of the Existing Contract Import Capability, Pre-RA Import Commitment Capability, New Use Import Commitment Capability or Remaining Import Capability. It shall be the exclusive responsibility of the Scheduling Coordinator for the Load Serving Entity or Market Participant to ensure that the information posted to the CAISO Website under this Section is accurate and up to date.</p>	<p>This revision removes language due to the implementation of the new maximum import capability enhancement, which now routes all registration and contact information through the CAISO Customer Interface for Resource Adequacy. Eligibility validation checks previously described in this section are now automatically enforced through Customer Interface for Resource Adequacy access controls. Maintaining this information separately on the CAISO website based on manual submissions has become redundant and creates a risk of mismatched or outdated data. The Customer Interface for Resource Adequacy contains the most current information, and key registration data is also published on OASIS, ensuring transparency without duplicative processes.</p>
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<p>Sec 40.4.7.1 (b)</p>	<p>(b) The monthly Supply Plans or the same information as required to be included in the monthly Supply Plan, plus any other information the CAISO requires as identified in the Business Practice Manual, shall be submitted to the CAISO at least 45 days in advance of the first day of the month covered by the plan, and in accordance with the schedule and in the reporting format(s) set forth in the Business Practice Manual, and shall verify their agreement to provide Resource Adequacy Capacity during that resource adequacy month. The monthly Supply Plan may identify a Local Capacity Area Resource as Listed Local RA Capacity.</p> <p><u>Provided, however, that a Scheduling Coordinator may submit an initial Supply Plan from 45 days through 30 days in advance of the relevant month if: (i) the Resource Adequacy Capacity on the initial Supply Plan was procured by a Scheduling Coordinator for a Load Serving Entity or CPE to resolve a deficiency; (ii) the initial Supply Plan is submitted to resolve a discrepancy that arose based on a Resource Adequacy Plan revision made to add additional Resource Adequacy Capacity voluntarily; or (iii) the initial Supply Plan solely includes a resource or resources that received an initial Net Qualifying Capacity value between 45 days through 30 days in advance of the relevant month.</u></p>	<p>This revision clarifies the established CAISO practices for Resource Adequacy and Supply Plan submission process and the cure period between T-45 and T-30. The current system offers greater flexibility in the process, benefiting both suppliers and load-serving entities. These updates enhance transparency regarding capabilities of the Customer Interface for Resource Adequacy and associated business processes.</p>
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Sec 40.4.7.1 (c)	<p>(c) The Scheduling Coordinator for the Resource Adequacy Resource may submit, at any time from 45 days through 30 days in advance of the relevant month, a revision to its monthly Supply Plan to correct a discrepancy between its monthly Supply Plan and a Resource Adequacy Plan of a Load Serving Entity or CPE. <u>Such revision may be to address a discrepancy that existed as of the initial plan submissions by 45 days in advance of the relevant month or to address a discrepancy that arose between 45 days through 30 days in advance of the relevant month. A Scheduling Coordinator also may revise a monthly Supply Plan at any time from 45 days through 30 days in advance of the relevant month to remove Resource Adequacy Capacity from the Supply Plan. for which that Resource Adequacy Resource is providing Resource Adequacy Capacity, as provided in Section 40.7(b).</u> The CAISO will not accept any revisions to a monthly Supply Plan from 30 days in advance of the relevant month through the end of the month, unless the Scheduling Coordinator for the Resource Adequacy Resource demonstrates good cause for the change and explains why it was not possible to submit the change earlier.</p>	<p>This revision clarifies the established CAISO practices for Resource Adequacy and Supply Plan submission process and the cure period between T-45 and T-30. The current system offers greater flexibility in the process, benefiting both suppliers and load-serving entities. These updates enhance transparency regarding capabilities of the Customer Interface for Resource Adequacy and associated business processes.</p>
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Sec 40.7 (a), Sixth Sentence	In the case of a discrepancy between Resource Adequacy Plan(s) and <u>initial</u> Supply Plan(s), the CAISO will notify the relevant Scheduling Coordinators in an attempt to resolve any deficiency in accordance with the procedures set forth in the Business Practice Manual.	This revision clarifies the established CAISO practices for Resource Adequacy and Supply Plan submission process and the cure period between T-45 and T-30. The current Customer Interface for Resource Adequacy system offers greater flexibility in the process, benefiting both suppliers and load-serving entities. These updates enhance transparency regarding capabilities of the Customer Interface for Resource Adequacy and associated business processes.
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Sec 40.10.5.1 (d)	<p>(d) Correction to Monthly Plan. The Scheduling Coordinator for the Load Serving Entity may submit at any time from 45 days through 30 days in advance of the first day of the month covered by the plan, a revision to its monthly LSE Flexible RA Capacity Plan to correct either: (i) a discrepancy between its monthly LSE Flexible RA Capacity Plan and the monthly Supply Plan of a Resource Adequacy Resource providing that Load Serving Entity with Flexible RA Capacity; or (ii) a deficiency in how much Flexible RA Capacity was provided on the monthly LSE Flexible RA Capacity Plan. <u>From 45 days through 30 days in advance of the relevant month, the Scheduling Coordinator for a Load Serving Entity also may revise its LSE Flexible RA Capacity Plan voluntarily either to add additional Flexible RA Capacity or remove Flexible RA Capacity regardless of a discrepancy or deficiency that existed as of 45 days in advance of the relevant month.</u> The CAISO will not accept any revisions to a monthly LSE Flexible RA Capacity Plan from 30 days in advance of the relevant month through the end of the month, unless the Scheduling Coordinator for the Load Serving Entity demonstrates good cause for the change and explains why it was not possible to submit the change earlier.</p>	<p>This revision clarifies the established CAISO practices for Resource Adequacy and Supply Plan submission process and the cure period between T-45 and T-30. The current Customer Interface for Resource Adequacy system offers greater flexibility in the process, benefiting both suppliers and load-serving entities. These updates enhance transparency regarding capabilities of the Customer Interface for Resource Adequacy and associated business processes.</p>
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Sec 40.10.5.2 (c) (3)	<p>(3) include all information and be submitted to the CAISO at least 45 days in advance of the first day of the month covered by the plan, in accordance with the reporting requirements and schedule set forth in the Business Practice Manual, <u>provided that a Scheduling Coordinator may submit an initial monthly Resource Flexible RA Capacity Plan between 45 days through 30 days in advance of the relevant month if: (i) the Flexible RA Capacity on the initial Flexible RA Capacity Plan was procured by a Scheduling Coordinator for a Load Serving Entity to resolve a deficiency; (ii) the initial Resource Flexible RA Capacity Plan is submitted to resolve a discrepancy that arose based on a LSE Flexible RA Capacity Plan revision made to add additional Flexible RA Capacity voluntarily; or (iii) the initial Resource Flexible RA Capacity Plan solely includes a resource or resources that received an initial Effective Flexible Capacity value between 45 days through 30 days in advance of the relevant month.</u></p>	<p>This revision clarifies the established CAISO practices for Resource Adequacy and Supply Plan submission process and the cure period between T-45 and T-30. The current Customer Interface for Resource Adequacy system offers greater flexibility in the process, benefiting both suppliers and load-serving entities. These updates enhance transparency regarding capabilities of the Customer Interface for Resource Adequacy and associated business processes.</p>
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Sec 40.10.5.2 (d)	<p>(d) Correction to Monthly Plan. The Scheduling Coordinator for the Resource Adequacy Resource may, at any time from 45 days through 30 days in advance of the relevant month, revise its monthly Flexible RA Capacity Plan to correct a discrepancy between its monthly Flexible RA Capacity Plan and a Resource Adequacy Plan of a Load Serving Entity for which that Resource Adequacy Resource is providing Flexible RA Capacity. <u>Such revision may be to address a discrepancy that existed as of the initial plan submissions by 45 days in advance of the relevant month or to address a discrepancy that arose between 45 days through 30 days in advance of the relevant month.</u> The CAISO will not accept any revisions to a monthly Flexible RA Capacity Plan less than 30 days in advance of the relevant month through the end of the month, unless the Scheduling Coordinator for the Resource demonstrates good cause for the change and explains why it was not possible to submit the change earlier.</p>	<p>This revision clarifies the established CAISO practices for Resource Adequacy and Supply Plan submission process and the cure period between T-45 and T-30. The current Customer Interface for Resource Adequacy system offers greater flexibility in the process, benefiting both suppliers and load-serving entities. These updates enhance transparency regarding capabilities of the Customer Interface for Resource Adequacy and associated business processes.</p>
App A, MSG Configuration	<p>MSG Configuration A qualified and registered operating mode of a Multi-Stage Generating Resource, with a distinct set of operating characteristics <u>such that only one such MSG Configuration can be operated in any given Dispatch Interval.</u> All MSG Configurations for Multi-Stage Generating Resources are operable on-line modes.</p>	<p>This revision updates the definition of MSG Configuration to clarify that only one configuration can be operated per Dispatch Interval and that all configurations must be operable online modes, supporting consistent modeling under mandatory multi-stage generator rules.</p>

<p>App A, Multi-Stage Generating Resources</p>	<p>Multi-Stage Generating Resources</p> <p>A Generating Unit that for reasons related to its technical characteristics can be operated in various MSG Configurations such that only one such MSG Configuration can be operated in any given Dispatch Interval. In addition, subject to the requirements in Section 27.8, the following technical characteristics qualify a A Generating Unit <u>is as</u> a Multi-Stage Generating Resource if <u>it the resource</u>: (1) is a combined cycle resource, excluding those that are one-by-one combined cycle resources without bypassing, duct firing capability or power augmentation capability; (2) has more than one Forbidden Operating Region; (3) has multiple operating modes, including Regulating Ranges associated with different Ancillary Services capability; or (4) has hold times before or after a Transition through a Forbidden Operating Region; <u>or (5) any other resource that has multiple operating modes such that only one of those modes can be operated in any given Dispatch Interval. For the purposes of item (4), a</u> hold time is an operational restriction that requires the resource to stay in or out of a specific operating mode for a given period of time, derived from the physical characteristics registered in the Master File for the resource, which may be in the form of a requirement that the resource stay in a particular operating mode for a period of time once it is in, or that the resource must stay out of a particular operating mode for a period of time once it is out of that operating mode.</p> <p><u>Notwithstanding the above, by definition</u> Metered Subsystems <u>in their entirety</u>, Pumped-Storage Hydro Units, and Pumping Loads, <u>Non-Generator Resources</u>, and System Resources <u>are not do not qualify as</u> Multi-Stage Generating Resources and therefore cannot register as such as provided in Section 27.8. Regulatory Must-Take Resources are not required to be registered as Multi-Stage Generating Resources. Dispatchable Qualifying Facilities that are not qualified as Regulatory Must-Take resources are required to register as Multi-Stage Generating Resources, provided they meet the qualifying technical characteristics described above.</p>	<p>This revision clarifies and updates the multi-stage generator registration criteria to reflect CAISO's current rules under which registration is mandatory for qualifying resources. The revision streamlines the qualifying criteria, adds an explicit fifth category for resources with multiple exclusive operating modes, and simplifies the exception language for resources that cannot register as multi-stage generators. These changes ensure the tariff accurately reflects how the CAISO administers multi-stage generator registration today and supports consistent resource modeling and operational treatment.</p>
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App A, Pump Shut Down Costs	Pump Shut-Down Costs A Bid Component submitted by Scheduling Coordinators for resources that are registered as a Participating Load that indicates the \$/ MWh <u>shutdown</u> that the Scheduling Coordinator is willing to be paid to not pump.	This revision corrects the unit of measure for Pump Shut Down Costs to reflect \$/shutdown instead of \$/MWh. This change reflects the longstanding practice of the CAISO to use a \$/shutdown measure for Pump Shut Down Costs.
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Attachment B – Clean Tariff

2025 Summer Tariff Clarifications Filing

California Independent System Operator Corporation

August 21, 2025

Section 8

8.3.8 Procurement of Voltage Support

Any Participating Generator who is producing Energy shall, upon the CAISO's specific request, provide reactive energy output outside the Participating Generator's Voltage Support obligation defined in Section 8.2.3.3.

The CAISO shall select Participating Generators' Generating Units to provide this additional Voltage Support. Subject to any locational requirements and if feasible, the CAISO shall select the least costly Generating Units to produce additional Voltage Support in each location where Voltage Support is needed.

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Section 11

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11.29.2 One Agreement Will Govern All Settlement, Billing, and Payment

This Section applies to every Business Associate that is a party to more than one agreement with the CAISO that governs settlement, billing and payment. These agreements are: Scheduling Coordinator Agreements, EIM Entity Scheduling Coordinator Agreements (regardless whether the addendum for EDAM is effective), EIM Participating Resource Schedule Coordinator Agreements, CRR Entity Agreements, the Transmission Control Agreement (for Participating Transmission Owners) and Black Start Agreements. Collectively, these agreements, including any successors to these agreements, are referred to in this Section as "Billing and Payment Agreements." One of the Billing and Payment Agreements between the Business Associate and the CAISO will be designated to govern all CAISO settlements, whether those settlements are under this Section 11, Section 29.11 or Section 33.11, and all billing and payment arising from those settlements, including but not limited to payment and collection of all amounts due from the Business Associate to the CAISO and all amounts due from the CAISO to the

Business Associate under all Billing and Payment Agreements between the Business Associate and the CAISO. For avoidance of doubt, Scheduling Coordinators, Candidate CRR Holders, CRR Holders, CRR Entities, Participating Transmission Owners and Black Start Generators that are party to Black Start Agreements are obligated to pay all Invoices and entitled to receive payment on Payment Advices issued to the Business Associate pursuant to Section 11, Section 29.11 or Section 33.11. The designated agreement will be the agreement that appears first on this list:

- a) Transmission Control Agreement;
- b) Scheduling Coordinator Agreement;
- c) EIM Scheduling Coordinator Agreement;
- d) EIM Participating Resource Scheduling Coordinator Agreements;
- e) CRR Entity Agreement;
- f) Black Start Agreement.

If the Business Associate is party to more than one agreement of the same type, such as two or more Scheduling Coordinator Agreements, then the first-executed agreement of that type is designated.

Nothing in this Section shall limit or otherwise affect the obligation of the Business Associate to comply with the terms of every Billing and Payment Agreement to which it is a party.

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11.29.7.1 Timing of Settlements Process

The CAISO will issue: (i) Initial Settlement Statements T+9B on the ninth (9) business day from the relevant Trading Day (T+9B); (ii) Recalculation Settlement Statements T+70B on the seventieth (70) business day from the relevant Trading Day (T+70B); (iii) Recalculation Settlement Statements T+11M on the two hundred thirty-fourth (234) business day after the Trading Day, which is approximately eleven (11) months after the Trading Day (T+11M), if necessary; (iv) Recalculation Settlement Statements T+21M on the four hundred forty-sixth (446) business day after the Trading Day, which is approximately twenty-one (21) calendar months from the relevant Trading Day (T+21M), if necessary; (v) Recalculation Settlement Statements T+24M on the five hundred twelfth (512) business day after the Trading Day,

which is approximately twenty-four (24) calendar months from the relevant Trading Day (T+24M), if necessary and (vi) any Unscheduled Recalculation Settlement Statement issued pursuant to Section 11.29.7.3. The CAISO will issue a Market Notice if any Unscheduled Recalculation Settlement Statement pursuant to Section 11.29.7.3 is issued for a Trading Day. The CAISO will notify affected Market Participants regarding failed or late issuance of any settlement statements specified above and will rectify such failed or late issuance pursuant to its procedure posted on the CAISO Website.

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Section 24

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24.6 Obligation to Construct Transmission Solutions

The Approved Project Sponsor selected to construct the needed transmission solution or the applicable Participating TO where there is no Approved Project Sponsor, must make a good faith effort to obtain all approvals and property rights under applicable federal, state and local laws that are necessary to complete the construction of the required transmission solution. This obligation includes the Approved Project Sponsor's use of eminent domain authority, where provided by state law. A Participating TO in whose PTO Service Territory or footprint either terminus of the transmission solution is located shall be obligated to construct all regional transmission solutions included in the comprehensive Transmission Plan for which there is no Approved Project Sponsor either from the first competitive solicitation or future competitive solicitations. The Approved Project Sponsor shall not sell, assign or otherwise transfer its rights to finance, construct and own the needed transmission solution, or any element thereof, before the facilities have been energized and, if applicable, turned over to the CAISO's Operational Control unless the CAISO has approved such proposed transfer, which approval shall not be unreasonably withheld. The CAISO shall not approve such sale, assignment or transfer unless the purchaser, transferee or assignee (i) meets the qualification requirements set forth in section 24.5.3.1; (ii) agrees to honor any binding cost containment measures or cost caps agreed to by the Approved Project Sponsor in its proposal; (iii) agrees to meet the factors that the ISO relied upon in selecting the proposal of the

Approved Project Sponsor; and (iv) assumes the rights and obligations set forth in the Approved Project Sponsor Agreement.

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Section 27

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27.8.1 Registration and Qualification

With the exception of Regulatory Must-Take Generation, Scheduling Coordinators responsible for resources that meet the definition of a Multi-Stage Generating Resource based on their Master File registered characteristics must register such resources with the CAISO as Multi-Stage Generating Resources as further discussed in this Section, and must comply with all requirements that apply to such resources specified in the CAISO Tariff. Scheduling Coordinators for Regulatory Must-Take Generation may, but are not required to, register such resources with the CAISO as Multi-Stage Generating Resources. Scheduling Coordinators for resources that do not meet the definition of a Multi-Stage Generating Resource are not permitted to register such resources with the CAISO as Multi-Stage Generating Resources. Scheduling Coordinators must comply with the registration and qualification process described in this Section 27.8.1, in order to effectuate any of the changes described in Section 27.8.3. No less than sixteen (16) days prior to the date that Scheduling Coordinator seeks to have the resource participate in the CAISO Markets under the new settings or MSG Configuration details, the Scheduling Coordinator must complete and submit to the CAISO the registration form and the resource data template provided by the CAISO for registration and qualification purposes. After the Scheduling Coordinator submits a request for registration of a Generating Unit as a Multi-Stage Generating Resource or a change in the attributes in Section 27.8.3, the CAISO will coordinate with that Scheduling Coordinator to validate that the resource qualifies for the requested status and that all the requisite information has been successfully provided to the CAISO. The resource will be successfully registered and qualified as a Multi-Stage Generating Resource, or the requested changes in the attributes listed in Section 27.8.3 will be successfully registered and qualified as of the date on which the CAISO sends the

responsible Scheduling Coordinator a notice that the resource has been successfully qualified as such. In the absence of extenuating circumstances, the ISO will provide such notice on the sixteenth day after the Scheduling Coordinator provides new settings or MSG Configuration details. After the date on which the CAISO has provided such notice, any changes to the items listed in Section 27.8.3 will be subject to the timing and process requirements in this Section 27.8.1 and 27.8.3. The Scheduling Coordinator may modify all other Multi-Stage Generating Resource registered characteristics pursuant to the timing and processing requirements specified elsewhere in this CAISO Tariff, as they may apply. If the CAISO has reason to believe that the resource's operating and technical characteristics are not consistent with the registered and qualified attributes, the CAISO may request that the Scheduling Coordinator provide additional information necessary to support their registered status and, if appropriate, may require that the resource be registered and qualified more consistent with the resource's operating and technical characteristics, including the revocation of its status as a Multi-Stage Generating Resource. Failure to provide such information may be grounds for revocation of Multi-Stage Generating Resource status. Such changes in status or MSG Configuration details would be subject to the registration and qualification requirements in this Section 27.8. Scheduling Coordinators may register the number MSG Configurations as are reasonably appropriate for the resource based on the technical and operating characteristics of the resource, which may not, however, exceed a total of ten MSG Configurations and cannot be fewer than two MSG Configurations. The information requirements specified in Section 27.8.2 will apply.

27.8.2 Information Requirements

As part of the registration process described in Section 27.8.1, Scheduling Coordinators for Generating Units registering as Multi-Stage Generating Resources must submit to the CAISO a Transition Matrix, which contains the Transition Costs and operating constraints associated with MSG Transitions. The Scheduling Coordinator may register up to six (6) MSG Configurations without any limitation on the number of transitions between the registered MSG Configurations in the Transition Matrix. If the Scheduling Coordinator registers seven (7) or more MSG Configurations, then the Scheduling Coordinator may only include two (2) eligible transitions between MSG Configurations for upward and downward transitions, respectively, starting from the initial MSG Configuration in the Transition Matrix. For each MSG Configuration, the responsible Scheduling Coordinator shall submit an Operational Ramp

Rate and, as applicable, an Operating Reserve Ramp Rate and Regulating Reserves ramp rate, each of which shall have at least one (1) segment and no more than two (2) segments. The Scheduling Coordinator may submit changes to this information consistent with Sections 27.8.1 and 27.8.3, as they may apply.

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27.13 Aggregate Capability Constraint

At the request of the Interconnection Customer or Pseudo-Tie Generating Facility, the CAISO may enforce an Aggregate Capability Constraint for Generating Facilities with Co-located Resources that reflects a Generating Facility's maximum and minimum capability or a portion of that capability for purposes of Day-Ahead Market Awards, Real-Time Market Awards, and Real-Time Dispatch as described in the CAISO's Business Practice Manuals. If the combined PMax of Co-located Resources associated with a single Generating Facility would exceed the Interconnection Service Capacity of that Generating Facility, the Interconnection Customer may request that the CAISO enforce an Aggregate Capability Constraint or multiple Aggregate Capability Constraints at the Generating Facility as described in the CAISO's Business Practice Manuals. If the Interconnection Customer requests that the CAISO enforce multiple Aggregate Capability Constraints, the CAISO will enforce an Aggregate Capability Constraint at the Generating Facility level and subordinate Aggregate Capability Constraints at the level of Resource IDs.

If the Interconnection Customer does not elect an Aggregate Capability Constraint(s), the combined PMax of the Co-located Resources registered in the Master File for that Generating Facility may not exceed the Generating Facility's Interconnection Service Capacity. EIM Participating Resource Scheduling Coordinators also may request that the CAISO enforce an Aggregate Capability Constraint or multiple Aggregate Capability Constraints for Co-located Resources, subject to the prior written approval of the applicable EIM Entity Balancing Authority that enforcing an Aggregate Capability Constraint(s) for Co-located Resources does not create a threat to safety or reliability.

As described in the CAISO's Business Practice Manuals the CAISO may relax enforcement of

subordinate Aggregate Capability Constraints in its Real-Time Market prior to relaxing enforcement of the system energy-balance constraint specified in Sections 27.4.3.3.4 to ensure there is sufficient Supply to meet the CAISO Forecast of CAISO Demand.

Notwithstanding Section 34.13, a Generating Facility whose Co-located Resources, including Variable Energy Resources, do not comply with Dispatch Instructions such that their output exceeds the Interconnection Service Capacity of the Generating Facility, will be ineligible for the Aggregate Capability Constraint. In such cases, the CAISO will adjust the PMaxes of those Co-located Resources proportionate to each Generating Unit's capacity such that the sum of the PMax values equals the Interconnection Service Capacity of the Generating Facility, or as requested by the Interconnection Customer so long as the total value does not exceed the Interconnection Service Capacity of the Generating Facility.

Similar to other Generating Facilities with multiple Resource IDs, the CAISO will have no liability with respect to Co-located Resources or their Scheduling Coordinators if Co-located Resources do not comply with Dispatch Instructions and infringe on Interconnection Service Capacity used by other Co-located Resources at a Generating Facility.

In the event that Co-located Resources in an EIM Entity Balancing Authority area do not comply with Dispatch Instructions such that their output exceeds the interconnection service capacity for the Co-located Resources, the CAISO will ask the applicable EIM Entity Balancing Authority whether it will revoke its prior approval of enforcing the Aggregate Capability Constraint for such Co-located Resources.

The following resources are not eligible to use the Aggregate Capability Constraint: Multi-Stage Generators, Proxy Demand Response, Pumped Storage Hydro Units, Metered Subsystems, and Use-Limited Resources.

The Pricing Node for the Generating Units or EIM Participating Resources subject to an Aggregate Capability Constraint will be their Point of Interconnection.

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Section 31

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31.5.3 RUC Procurement Target

The procurement target for RUC in any given Trading Hour will be determined based on the next day's hourly CAISO Forecast of CAISO Demand less the Energy scheduled in the Day-Ahead Schedule, and accounting for other factors, as appropriate, such as Demand Forecast error and estimated incremental RTM Bids including those from Participating Intermittent Resources. The adjustments listed in Sections 31.5.3.1 to 31.5.3.1.6 will be made to the CAISO Forecast of CAISO Demand to account for the conditions as provided therein. Adjustments may be made on a RUC Zone basis to ensure that RUC results in adequate local capacity procurement. The RUC procurement target setting procedure is designed to meet the requirements of reliable grid operation without unnecessary over-procurement of RUC Capacity or over-commitment of resources. Additional detail on the process for setting the RUC procurement target is specified in the Business Practice Manuals.

31.5.3.1 CAISO Operator Review & Adjustment

The CAISO Operator reviews the CAISO Forecast of CAISO Demand and all calculated adjustments as provided in Sections 31.5.3.1.1 through 31.5.3.1.6. The CAISO Operator may accept, modify, or reject such adjustments based on Good Utility Practice. If the CAISO Operator determines it must modify the CAISO Forecast of CAISO Demand, the CAISO Operator shall log sufficient information as to reason, Operating Hour, and specific modification(s) made to the CAISO Forecast of CAISO Demand.

31.5.3.1.1 RUC Net Short Conditions

The CAISO Operator may conform the CAISO Forecast of CAISO Demand in the event the CAISO Operator has determined that additional capacity may need to be procured in RUC to meet anticipated Real-Time system conditions. The CAISO Operator will consider factors such as: CAISO Forecast of CAISO Demand error; weather pattern that is expected to continue or change within the next Trading Day; generator outage resulting in different Supply availability than was bid into the Day-Ahead Market; fire that threatens transmission lines and/or corridors; the expectation that the amount of Generation committed in the IFM will not be sufficient to meet the anticipated Demand; and Reliability Coordinator next-day analysis of system conditions.

31.5.3.1.2 Demand Response Adjustments.

The CAISO may adjust the CAISO Forecast of CAISO Demand to account for Demand response that is clearly communicated to the CAISO as certain to be curtailed for the next Trading Day. Such adjustments may be made only for the two following types of Demand response: (1) Demand response triggered by a staged System Emergency event; and (2) Demand response that is triggered by a price or an event known in advance. If an LSE informs the CAISO of anticipated Demand response prior to Market Close of the DAM, the CAISO Forecast of CAISO Demand used as the RUC procurement target will be reduced accordingly.

31.5.3.1.3 MSS Adjustment

As specified in section 31.5.2.1, MSS Operators are permitted to make an annual election to opt-in or opt-out of RUC participation. If the MSS Operator opts-in to the RUC procurement process, the CAISO considers the CAISO's Demand Forecast of the MSS Demand in setting the RUC procurement target. If an MSS Operator opts-out of the RUC procurement process, the CAISO does not consider the CAISO's Demand Forecast of the MSS Demand in setting the RUC procurement target. An MSS Operator that has elected to opt-out of RUC, or has elected to Load follow and therefore has also elected to opt-out of RUC, is required to provide sufficient resources in the Day-Ahead Market, and in the case of a Load following MSS Operator, follow its Load within the MSS Deviation Band. To reflect these options and to prevent committing additional capacity or resources for any differences between the CAISO Demand Forecast for the MSS and the MSS Self-Scheduled quantities in the IFM, the CAISO replaces the CAISO Demand Forecast for such MSS with the quantity of Demand in Self-Schedules submitted by the Scheduling Coordinator for the MSS in the IFM.

31.5.3.1.4 Eligible Intermittent Resource Adjustment

Scheduling Coordinators for Eligible Intermittent Resources may submit Bids, including Self-Schedules, in the Day-Ahead Market and the quantity ultimately scheduled from Eligible Intermittent Resources may differ from the CAISO forecasted deliveries from the Eligible Intermittent Resources. The CAISO may adjust the forecasted Demand either up or down for such differences by RUC Zone in which the Eligible Intermittent Resource resides. If the EIR's expected output participating in the Day-Ahead Market, as reflected in the EIR's Bid, including a Self-Schedule, or lack thereof, is less than CAISO's forecast of the EIR, the CAISO may make a Supply-side adjustment to the resource's expected output by using the

CAISO's forecast of the EIR. If on the other hand, the EIR's expected output participating in the Day-Ahead Market, as reflected in the EIR's Bid, including a Self-Schedule, or lack thereof, is greater than the CAISO's forecast of the EIR, the CAISO may make a Demand side adjustment to the RUC Zone Demand equal to the difference between the EIR's Day-Ahead Schedule and the CAISO forecasted quantity.

31.5.3.1.5 Real-Time Expected Incremental Supply Self-Schedule Adjustment

In order to avoid over procurement of RUC, the CAISO may, using a similar-day approach, estimate the RTM Self-Schedules for resources that usually submit RTM Self-Schedules that are greater than their Day-Ahead Schedules. The CAISO Operator may set the length of the Self-Schedule moving average window. Initially this moving average window shall be set by default to seven (7) days; in which case the weekday estimate is based on the average of five (5) most recent weekdays and the weekend estimate is based on the average of the two (2) most recent weekend days. To the extent weather conditions differ significantly from the historical days, additional adjustment may be necessary. After determining the estimate of Real-Time Self-Schedules, using a similar day forecasting approach, the CAISO may adjust the CAISO Forecast of CAISO Demand of a RUC Zone based on the forecasted quantity changes in Supply as a result of Self-Schedules submitted in the RTM. This adjustment for forecasted Real-Time Self-Schedules may result in positive or negative adjustments. Demand adjustments to the CAISO Forecast of CAISO Demand result when there is a net forecast decrease in Real-Time Self-Schedule Supply relative to the Day-Ahead Schedule Supply. Supply adjustments to the individual resources occur when there is a net forecast increase in Real-Time Self-Schedule Supply relative to the Day-Ahead Schedule Supply of the individual resource.

31.5.3.1.6 Day-Ahead Ancillary Service Procurement Deficiency Adjustment

While the CAISO intends to procure one hundred percent (100%) of its forecasted Operating Reserve requirement in the IFM based on the CAISO Forecast of CAISO Demand as specified in Section 8.3.1, the CAISO may make adjustments to the CAISO Forecast of CAISO Demand used in RUC to ensure sufficient capacity is available or resources committed in cases that the CAISO is unable to procure one hundred percent (100%) of its forecasted Operating Reserve requirement in the IFM; provided, however, that the CAISO shall not procure specific Ancillary Services products in RUC, nor will the RUC optimization consider AS-related performance requirements of available capacity.

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Section 34

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34.18.2.4 Voltage Support

- (a) The CAISO may Dispatch Generating Units to increase or decrease MVar output within power factor limits established pursuant to Section 8.2.3.3 (or within other limits specified by the CAISO in any exemption granted pursuant to Section 8.2.3.3) at no cost to the CAISO when required for System Reliability.
- (b) The CAISO may Dispatch each Generating Unit to increase or decrease MVar output outside of established power factor limits, but within the range of the Generating Unit's capability curve, at a price calculated in accordance with the CAISO Tariff.
- (c) If Voltage Support is required in addition to that provided pursuant to Section 34.18.2.4 (a) and (b), the CAISO will reduce output of Participating Generators. The CAISO will select Participating Generators in the vicinity where such additional Voltage Support is required.
- (d) The CAISO will monitor voltage levels at Interconnections to maintain them in accordance with the applicable inter-Balancing Authority Area agreements.

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Section 40

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40.2.2.4 Annual and Monthly Resource Adequacy Plans

The Scheduling Coordinator for a Non-CPUC Load Serving Entity or a CPUC Load Serving Entity subject to Section 40.2.1(b), or a CPE must provide annual and monthly Resource Adequacy Plans for such Load Serving Entity or CPE, as follows:

- (a) Each annual Resource Adequacy Plan must be submitted to the CAISO on a schedule and in the reporting format(s) set forth in the Business Practice Manual. The annual Resource Adequacy Plan must, at a minimum, set forth the Local Capacity Area Resources, if any, procured by the Load Serving Entity or CPE as described in Section 40.3, and may identify a Local Capacity Area Resource as Listed Local RA Capacity.
- (b) Each monthly Resource Adequacy Plan or the same information as required to be included in the monthly Resource Adequacy Plan, plus any other information the CAISO requires as identified in the Business Practice Manual, must be submitted to the CAISO at least 45 days in advance of the first day of the month covered by the plan, and in accordance with the schedule and in the reporting format(s) set forth in the Business Practice Manual. For Load Serving Entities, the monthly Resource Adequacy Plan must identify all resources, including Local Capacity Area Resources, the Load Serving Entity will rely upon to satisfy the applicable month's peak hour Demand of the Load Serving Entity as determined by the Demand Forecasts developed in accordance with Section 40.2.2.3 and applicable Reserve Margin. For CPEs, the monthly Resource Adequacy Plan must identify all Local Capacity Area Resources the CPE will rely upon to satisfy its Local Capacity Area Resource obligation. For each Local Capacity Area Resource identified on a monthly Resource Adequacy Plan, the Load Serving Entity or CPE also may identify RA Capacity from such resource as Listed Local RA Capacity. Resource Adequacy Plans must utilize the Net Qualifying Capacity requirements of Section 40.4. A Load Serving Entity is not obligated to commit a type of RA capacity on a monthly Resource Adequacy Plan if it holds a monthly obligation of less than 1 MW for that type of RA capacity but is not exempt from committing any other type of RA capacity for that month for which it holds a monthly obligation of 1 MW or greater and is not exempt for any relevant cost allocation from a CPM designation made pursuant to Section 43A associated with a monthly RA capacity obligation of less than 1 MW.
- (c) The Scheduling Coordinator for a Load Serving Entity or CPE may submit at any time from 45 days through 30 days in advance of the relevant month, a revision to its monthly

Resource Adequacy Plan to correct either: (i) a discrepancy between its monthly Resource Adequacy Plan and the monthly Supply Plan of a Resource Adequacy Resource providing that Load Serving Entity or CPE with Resource Adequacy Capacity, as provided in Section 40.7(b); or (ii) a deficiency in how much Resource Adequacy Capacity was provided on the monthly Resource Adequacy Plan. From 45 days through 30 days in advance of the relevant month, the Scheduling Coordinator for a Load Serving Entity or CPE also may revise its Resource Adequacy Plan voluntarily either to add additional Resource Adequacy Capacity or remove Resource Adequacy Capacity regardless of a discrepancy or deficiency that existed as of 45 days in advance of the relevant month. The CAISO will not accept any revisions to a monthly Resource Adequacy Plan from 30 days in advance of the relevant month through the end of the month, unless the Scheduling Coordinator for the Load Serving Entity or CPE demonstrates good cause for the change and explains why it was not possible to submit the change earlier.

- (d) The Scheduling Coordinator for the Load Serving Entity or CPE that submits a revision to its monthly Resource Adequacy Plan to correct a deficiency or discrepancy must include in the revision a MW amount of Resource Adequacy Capacity for each day of the month that is no less than the MW amount of Resource Adequacy Capacity included in its original plan for each day of the month.

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40.4.3 General Qualifications for Supplying Net Qualifying Capacity

Resource Adequacy Resources included in a Resource Adequacy Plan submitted by a Scheduling Coordinator on behalf of either a Load Serving Entity serving Load in the CAISO Balancing Authority Area or a CPE must:

- (1) Be available for testing by the CAISO to validate Qualifying Capacity, which can be no less than a resource's PMin as registered in the Master File even if the resource's

contractual Resource Adequacy Capacity is less than its PMin, and determine Net Qualifying Capacity for the next Resource Adequacy Compliance Year;

- (2) Provide any information requested by the CAISO to apply the performance criteria to be adopted by the CAISO pursuant to Section 40.4.5;
- (3) Submit Bids into the CAISO Markets as required by this CAISO Tariff;
- (4) Be in compliance, as of the date that the CAISO performs any testing or otherwise determines Net Qualifying Capacity for the next Resource Adequacy Compliance Year, with the criteria for Qualifying Capacity established by the CPUC, relevant Local Regulatory Authority, or federal agency and provided to the CAISO;
- (5) Be subject to Sanctions for non-performance as specified in the CAISO Tariff;
- (6) For a resource with contractual Resource Adequacy Capacity less than PMin as registered in the Master File, make the PMin available to the CAISO for commitment or dispatch at PMin, subject to Section 11.8 provisions for Bid Cost Recovery, so that the resource's Resource Adequacy Capacity can be utilized as required by this CAISO Tariff;
and
- (7) For a resource with contractual Resource Adequacy Capacity falling in a Forbidden Operating Region or between two MSG Configurations, make available to the CAISO for commitment or dispatch the capacity falling at the upper bound of the Forbidden Operation Region or the lower bound of MSG Configuration above the RA capacity, respectively, subject to Section 11.8 provisions for Bid Cost Recovery, so that the resource's Resource Adequacy Capacity can be utilized as required by this CAISO Tariff.

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40.4.6.2.2.1 [Not Used]

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40.4.7.1 Schedule for Submission of Supply Plans

Scheduling Coordinators representing Resource Adequacy Resources supplying Resource Adequacy Capacity shall provide the CAISO with annual and monthly Supply Plans, as follows:

- (a) The annual Supply Plan shall be submitted to the CAISO on the schedule set forth in the Business Practice Manual and shall verify their agreement to provide Resource Adequacy Capacity during the next Resource Adequacy Compliance Year. The annual Supply Plan may identify a Local Capacity Area Resource as Listed Local RA Capacity.
- (b) The monthly Supply Plans or the same information as required to be included in the monthly Supply Plan, plus any other information the CAISO requires as identified in the Business Practice Manual, shall be submitted to the CAISO at least 45 days in advance of the first day of the month covered by the plan, and in accordance with the schedule and in the reporting format(s) set forth in the Business Practice Manual, and shall verify their agreement to provide Resource Adequacy Capacity during that resource adequacy month. The monthly Supply Plan may identify a Local Capacity Area Resource as Listed Local RA Capacity. Provided, however, that a Scheduling Coordinator may submit an initial Supply Plan from 45 days through 30 days in advance of the relevant month if: (i) the Resource Adequacy Capacity on the initial Supply Plan was procured by a Scheduling Coordinator for a Load Serving Entity or CPE to resolve a deficiency; (ii) the initial Supply Plan is submitted to resolve a discrepancy that arose based on a Resource Adequacy Plan revision made to add additional Resource Adequacy Capacity voluntarily; or (iii) the initial Supply Plan solely includes a resource or resources that received an initial Net Qualifying Capacity value between 45 days through 30 days in advance of the relevant month.
- (c) The Scheduling Coordinator for the Resource Adequacy Resource may submit, at any time from 45 days through 30 days in advance of the relevant month, a revision to its monthly Supply Plan to correct a discrepancy between its monthly Supply Plan and a Resource Adequacy Plan of a Load Serving Entity or CPE. Such revision may be to address a discrepancy that existed as of the initial plan submissions by 45 days in

advance of the relevant month or to address a discrepancy that arose between 45 days through 30 days in advance of the relevant month. A Scheduling Coordinator also may revise a monthly Supply Plan at any time from 45 days through 30 days in advance of the relevant month to remove Resource Adequacy Capacity from the Supply Plan. The CAISO will not accept any revisions to a monthly Supply Plan from 30 days in advance of the relevant month through the end of the month, unless the Scheduling Coordinator for the Resource Adequacy Resource demonstrates good cause for the change and explains why it was not possible to submit the change earlier.

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40.7 Compliance

The CAISO will evaluate Resource Adequacy Plans and Supply Plans as follows:

- (a) The CAISO will evaluate whether each annual and monthly Resource Adequacy Plan submitted by a Scheduling Coordinator on behalf of a Load Serving Entity or CPE demonstrates Resource Adequacy Capacity sufficient to satisfy the Load Serving Entity's or CPE's (i) allocated responsibility for Local Capacity Area Resources under Section 40.3.2 and (ii) applicable Demand and Reserve Margin requirements. The CAISO will evaluate compliance with the responsibility for demonstrating Local Capacity Area Resources in two phases. Phase 1 of the Local Capacity Area Resource sufficiency evaluation will be made without regard to capacity's identification as Listed Local RA Capacity. Phase 2 of the Local Capacity Area Resource sufficiency evaluation will consider capacity to be a Local Capacity Area Resource only if it is also Listed Local RA Capacity. If the CAISO determines through the Phase 1 analysis that a Resource Adequacy Plan does not demonstrate Local Capacity Area Resources sufficient to meet its allocated responsibility under Section 40.3.2, compliance with applicable Demand and Reserve Margin requirements, or compliance with any other resource adequacy requirement in this Section 40 or adopted by the CPUC, Local Regulatory Authority, or

federal agency, as applicable, then the CAISO will notify the relevant Scheduling Coordinator, CPUC, Local Regulatory Authority, or federal agency with jurisdiction over the relevant Load Serving Entity or CPE. In the case of a discrepancy between Resource Adequacy Plan(s) and initial Supply Plan(s), the CAISO will notify the relevant Scheduling Coordinators in an attempt to resolve any deficiency in accordance with the procedures set forth in the Business Practice Manual. The notification will be made at least 40 days in advance of the first day of the month covered by the plan and will include the reasons the CAISO believes a deficiency exists. If the deficiency relates to the demonstration of Local Capacity Area Resources in a Load Serving Entity's or CPE's annual Resource Adequacy Plan, and the CAISO does not provide a written notice of resolution of the deficiency as set forth in the Business Practice Manual, the Scheduling Coordinator for the Load Serving Entity or CPE may demonstrate that the identified deficiency is cured by submitting a revised annual Resource Adequacy Plan within thirty (30) days of the beginning of the Resource Adequacy Compliance Year. For all other identified deficiencies, other than an insufficiency identified through Phase 2 of the Local Capacity Area Resource sufficiency evaluation, at least 30 days prior to the effective month of the relevant Resource Adequacy Plan, the Scheduling Coordinator for the Load Serving Entity or CPE shall: (i) demonstrate that the identified deficiency is cured by submitting a revised Resource Adequacy Plan; or (ii) advise the CAISO that the CPUC, Local Regulatory Authority, or federal agency, as appropriate, has determined that no deficiency exists. If, after providing any needed opportunity to resolve identified discrepancies as required by Section 40.7(b), the CAISO identifies an insufficiency through Phase 2 of the Local Capacity Area Resource sufficiency evaluation, then the CAISO may notify the relevant Local Regulatory Authority of the insufficiency.

- (b) In the case of a discrepancy between Resource Adequacy Plan(s) and Supply Plan(s), if resolved, the relevant Scheduling Coordinator(s) must provide the CAISO with revised Resource Adequacy Plan(s) or Supply Plans, as applicable, at least 30 days prior to the effective month. If the CAISO is not advised that the deficiency or discrepancy is

resolved at least 30 days prior to the effective month, the CAISO will use the information contained in the Supply Plan to set the obligations of Resource Adequacy Resources under this Section 40 and/or to assign any costs incurred under this Section 40 and Section 43A.

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40.10.5.1 LSE Flexible RA Capacity Plans

- (a) **Submission Requirement.** A Scheduling Coordinator must submit annual and monthly LSE Flexible RA Capacity Plans for each Load Serving Entity it represents.
- (b) **Annual Plan.** Each annual LSE Flexible RA Capacity Plan must –
 - (1) demonstrate that the Load Serving Entity has procured for each month at least 90 percent of the annual Flexible RA Capacity requirement determined by the CAISO; or the amount of Flexible RA Capacity required by the Load Serving Entity's Local Regulatory Authority, if the Local Regulatory Authority has set such requirement;
 - (2) identify the resources the Load Serving Entity intends to rely on to provide the Flexible RA Capacity, but need not identify the flexible resource adequacy categories; and
 - (3) include all information and be submitted no later than the last Business Day in October, in accordance with the reporting requirements and schedule set forth in the Business Practice Manual.
- (c) **Monthly Plan.** The monthly LSE Flexible RA Capacity Plan must –
 - (1) demonstrate that the Load Serving Entity procured 100 percent of the total monthly Flexible RA Capacity requirement determined by the CAISO; or the monthly amount of Flexible RA Capacity required by the Local Regulatory Authority, if the Local Regulatory Authority has set such requirement;
 - (2) include information for purposes of the validation under Section 40.10.5.3(a) and

the evaluation for cumulative deficiency under Section 40.10.5.3(c) that shows the MW of Flexible RA Capacity the Load Serving Entity designates based on the total monthly requirement determined by the CAISO within the minimum or maximum quantity, as applicable, for each Flexible Capacity Category; or only if the Local Regulatory Authority has established its own flexible capacity requirement, shows the MW of Flexible RA Capacity the Load Serving Entity designates based on the total monthly requirement determined by the Local Regulatory Authority within the minimum or maximum quantity for each Flexible Capacity Category required by the Local Regulatory Authority, if applicable;

- (3) identify all resources the Load Serving Entity will rely on to provide the Flexible RA Capacity and for each resource specify the Flexible Capacity Category in which the Flexible RA Capacity will be provided; and
- (4) include all information and be submitted to the CAISO at least 45 days in advance of the first day of the month covered by the plan, in accordance with the reporting requirements and schedule set forth in the Business Practice Manual.

- (d) **Correction to Monthly Plan.** The Scheduling Coordinator for the Load Serving Entity may submit at any time from 45 days through 30 days in advance of the first day of the month covered by the plan, a revision to its monthly LSE Flexible RA Capacity Plan to correct either: (i) a discrepancy between its monthly LSE Flexible RA Capacity Plan and the monthly Supply Plan of a Resource Adequacy Resource providing that Load Serving Entity with Flexible RA Capacity; or (ii) a deficiency in how much Flexible RA Capacity was provided on the monthly LSE Flexible RA Capacity Plan. From 45 days through 30 days in advance of the relevant month, the Scheduling Coordinator for a Load Serving Entity also may revise its LSE Flexible RA Capacity Plan voluntarily either to add additional Flexible RA Capacity or remove Flexible RA Capacity regardless of a discrepancy or deficiency that existed as of 45 days in advance of the relevant month. The CAISO will not accept any revisions to a monthly LSE Flexible RA Capacity Plan from 30 days in advance of the relevant month through the end of the month, unless the

Scheduling Coordinator for the Load Serving Entity demonstrates good cause for the change and explains why it was not possible to submit the change earlier.

- (e) **Reporting Exemption.** Notwithstanding the above, a Load Serving Entity is not obligated to submit a monthly LSE Flexible RA Capacity Plan for a given month if the Load Serving Entity's contribution to the three-hour net load ramp is less than 1 MW for that month. Except to the extent allowed under section 43A.8.8(e), such Load Serving Entity is not exempt for any relevant cost allocation from a CPM designation made pursuant to Section 43A associated with a monthly RA capacity obligation of less than 1 MW.

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40.10.5.2 Resource Flexible RA Capacity Plans

- (a) **Submission Requirement.** A Scheduling Coordinator must submit annual and monthly Resource Flexible RA Capacity Plans for each resource it represents that provides Flexible RA Capacity; except that an annual plan is not required for 2015.
- (b) **Annual Plan.** The annual Resource Flexible RA Capacity Plan shall --
 - (1) verify the resource's agreement to provide Flexible RA Capacity during the next Resource Adequacy Compliance Year; and
 - (2) include all information and be submitted no later than the last Business Day in October, in accordance with the reporting requirements and schedule set forth in the Business Practice Manual.
- (c) **Monthly Plan.** The monthly Resource Flexible RA Capacity Plan shall --
 - (1) verify the resource's agreement to provide Flexible RA Capacity during the month;
 - (2) include an affirmative representation by the Scheduling Coordinator submitting the plan that the CAISO is entitled to rely on the accuracy of the information provided in the plan to perform those functions set forth in this Section 40; and

- (3) include all information and be submitted to the CAISO at least 45 days in advance of the first day of the month covered by the plan, in accordance with the reporting requirements and schedule set forth in the Business Practice Manual, provided that a Scheduling Coordinator may submit an initial monthly Resource Flexible RA Capacity Plan between 45 days through 30 days in advance of the relevant month if: (i) the Flexible RA Capacity on the initial Flexible RA Capacity Plan was procured by a Scheduling Coordinator for a Load Serving Entity to resolve a deficiency; (ii) the initial Resource Flexible RA Capacity Plan is submitted to resolve a discrepancy that arose based on a LSE Flexible RA Capacity Plan revision made to add additional Flexible RA Capacity voluntarily; or (iii) the initial Resource Flexible RA Capacity Plan solely includes a resource or resources that received an initial Effective Flexible Capacity value between 45 days through 30 days in advance of the relevant month.
- (d) **Correction to Monthly Plan.** The Scheduling Coordinator for the Resource Adequacy Resource may, at any time from 45 days through 30 days in advance of the relevant month, revise its monthly Flexible RA Capacity Plan to correct a discrepancy between its monthly Flexible RA Capacity Plan and a Resource Adequacy Plan of a Load Serving Entity for which that Resource Adequacy Resource is providing Flexible RA Capacity. Such revision may be to address a discrepancy that existed as of the initial plan submissions by 45 days in advance of the relevant month or to address a discrepancy that arose between 45 days through 30 days in advance of the relevant month. The CAISO will not accept any revisions to a monthly Flexible RA Capacity Plan less than 30 days in advance of the relevant month through the end of the month, unless the Scheduling Coordinator for the Resource demonstrates good cause for the change and explains why it was not possible to submit the change earlier.

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Appendix A

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- MSG Configuration

A qualified and registered operating mode of a Multi-Stage Generating Resource, with a distinct set of operating characteristics such that only one such MSG Configuration can be operated in any given Dispatch Interval. All MSG Configurations for Multi-Stage Generating Resources are operable on-line modes.

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- Multi-Stage Generating Resources

A Generating Unit is a Multi-Stage Generating Resource if it: (1) is a combined cycle resource, excluding those that are one-by-one combined cycle resources without bypassing, duct firing capability or power augmentation capability; (2) has more than one Forbidden Operating Region; (3) has multiple operating modes, including Regulating Ranges associated with different Ancillary Services capability; (4) has hold times before or after a Transition through a Forbidden Operating Region; or (5) any other resource that has multiple operating modes such that only one of those modes can be operated in any given Dispatch Interval. For the purposes of item (4), a hold time is an operational restriction that requires the resource to stay in or out of a specific operating mode for a given period of time, derived from the physical characteristics registered in the Master File for the resource, which may be in the form of a requirement that the resource stay in a particular operating mode for a period of time once it is in, or that the resource must stay out of a particular operating mode for a period of time once it is out of that operating mode. Notwithstanding the above, by definition Metered Subsystems in their entirety, Pumped-Storage Hydro Units, Pumping Loads, Non-Generator Resources, and System Resources are not Multi-Stage Generating Resources.

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- Pump Shut-Down Costs

A Bid Component submitted by Scheduling Coordinators for resources that are registered as a Participating Load that indicates the \$/shutdown that the Scheduling Coordinator is willing to be paid to not pump.

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Attachment C – Marked Tariff
2025 Summer Tariff Clarifications Filing
California Independent System Operator Corporation
August 21, 2025

Section 8

8.3.8 Procurement of Voltage Support

Any Participating Generator who is producing Energy shall, upon the CAISO's specific request, provide reactive energy output outside the Participating Generator's Voltage Support obligation defined in Section 8.2.3.3.

The CAISO shall select Participating Generators' Generating Units ~~which have been certified for Voltage Support~~ to provide this additional Voltage Support. Subject to any locational requirements and if feasible, the CAISO shall select the least costly Generating Units ~~from a computerized merit order stack to back down~~ to produce additional Voltage Support in each location where Voltage Support is needed.

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Section 11

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11.29.2 One Agreement Will Govern All Settlement, Billing, and Payment

This Section applies to every Business Associate that is a party to more than one agreement with the CAISO that governs settlement, billing and payment. These agreements are: Scheduling Coordinator Agreements, EIM Entity Scheduling Coordinator Agreements (regardless whether the addendum for EDAM is effective), EIM Participating Resource Schedule Coordinator Agreements, CRR Entity Agreements, the Transmission Control Agreement (for Participating Transmission Owners) and Black Start Agreements. Collectively, these agreements, including any successors to these agreements, are referred to in this Section as "Billing and Payment Agreements." One of the Billing and Payment Agreements between the Business Associate and the CAISO will be designated to govern all CAISO settlements, whether those settlements are under this Section 11, Section 29.11 or Section 33.11, and all billing and payment arising from those settlements, including but not limited to payment and collection of all amounts due from the Business Associate to the CAISO and all amounts due from the CAISO to the

Business Associate under all Billing and Payment Agreements between the Business Associate and the CAISO. For avoidance of doubt, Scheduling Coordinators, Candidate CRR Holders, CRR Holders, CRR Entities, Participating Transmission Owners and Black Start Generators that are party to Black Start Agreements are obligated to pay all Invoices and entitled to receive payment on Payment Advices issued to the Business Associate pursuant to Section 11, Section 29.11 or Section 33.11. The designated agreement will be the agreement that appears first on this list:

- a) Transmission Control Agreement;
- b) Scheduling Coordinator Agreement;
- c) EIM Scheduling Coordinator Agreement;
- d) EIM Participating Resource Scheduling Coordinator Agreements;
- e) CRR Entity Agreement;
- f) Black Start Agreement.

If the Business Associate is party to more than one agreement of the same type, such as two or more Scheduling Coordinator Agreements, then the first-executed agreement of that type is designated.

Nothing in this Section shall limit or otherwise affect the obligation of the Business Associate to comply with the terms of every Billing and Payment Agreement to which it is a party.

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11.29.7.1 Timing of Settlements Process

The CAISO will issue: (i) Initial Settlement Statements T+9B on the ninth (9) business day from the relevant Trading Day (T+9B); (ii) Recalculation Settlement Statements T+70B on the seventieth (70) business day from the relevant Trading Day (T+70B); (iii) Recalculation Settlement Statements T+11M on the two hundred thirty-fourth (234) business day after the Trading Day, which is approximately eleven (11) months after the Trading Day (T+11M), if necessary; (iv) Recalculation Settlement Statements T+21M on the four hundred forty-sixth (446) business day after the Trading Day, which is approximately twenty-one (21) calendar months from the relevant Trading Day (T+21M), if necessary; (v) Recalculation Settlement Statements T+24M on the five hundred twelfth (512) business day after the Trading Day,

which is approximately twenty-four (24) calendar months from the relevant Trading Day (T+24M), if necessary and (vi) any Unscheduled Recalculation Settlement Statement issued pursuant to Section 11.29.7.3. The CAISO will issue a Market Notice if any Unscheduled Recalculation Settlement Statement ~~T+11M, Recalculation Settlement Statement T+21M, Recalculation Settlement Statement T+24M, or any Unscheduled Recalculation Settlement Statement~~ pursuant to Section 11.29.7.3 is issued for a Trading Day. The CAISO will notify affected Market Participants regarding failed or late issuance of any settlement statements specified above and will rectify such failed or late issuance pursuant to its procedure posted on the CAISO Website.

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Section 24

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24.6 Obligation to Construct Transmission Solutions

The Approved Project Sponsor selected to construct the needed transmission solution or the applicable Participating TO where there is no Approved Project Sponsor, must make a good faith effort to obtain all approvals and property rights under applicable federal, state and local laws that are necessary to complete the construction of the required transmission solution. This obligation includes the Approved Project Sponsor's use of eminent domain authority, where provided by state law. A Participating TO in whose PTO Service Territory or footprint either terminus of the transmission solution is located shall be obligated to construct all regional transmission solutions included in the comprehensive Transmission Plan for which there is no Approved Project Sponsor either from the first competitive solicitation or future competitive solicitations. The Approved Project Sponsor shall not sell, assign or otherwise transfer its rights to finance, construct and own the needed transmission solution, or any element thereof, before the facilities have been energized and, if applicable, turned over to the CAISO's Operational Control unless the CAISO has ~~not~~ approved such proposed transfer, which approval shall not be unreasonably withheld. The CAISO shall not approve such sale, assignment or transfer unless the purchaser, transferee or assignee (i) meets the qualification requirements set forth in section 24.5.3.1; (ii) agrees to honor any

binding cost containment measures or cost caps agreed to by the Approved Project Sponsor in its proposal; (iii) agrees to meet the factors that the ISO relied upon in selecting the proposal of the Approved Project Sponsor; and (iv) assumes the rights and obligations set forth in the Approved Project Sponsor Agreement.

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Section 27

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27.8.1 Registration and Qualification

With the exception of Regulatory Must-Take Generation, Scheduling Coordinators responsible for resources that meet the definition of a Multi-Stage Generating Resource based on their Master File registered characteristics must register such resources with the CAISO as Multi-Stage Generating Resources as further discussed in this Section, and must comply with all requirements that apply to such resources specified in the CAISO Tariff. Scheduling Coordinators for Regulatory Must-Take Generation may, but are not required to, register such resources with the CAISO as Multi-Stage Generating Resources. Scheduling Coordinators for resources that do not meet the definition of a Multi-Stage Generating Resource are not permitted to register such resources with the CAISO as Multi-Stage Generating Resources. Scheduling Coordinators must comply with the registration and qualification process described in this Section 27.8.1, in order to effectuate any of the changes described in Section 27.8.3. No less than sixteen (16) days prior to the date that Scheduling Coordinator seeks to have the resource participate in the CAISO Markets under the new settings or MSG Configuration details, the Scheduling Coordinator must complete and submit to the CAISO the registration form and the resource data template provided by the CAISO for registration and qualification purposes. After the Scheduling Coordinator submits a request for registration of a Generating Unit as a Multi-Stage Generating Resource or a change in the attributes in Section 27.8.3, the CAISO will coordinate with that Scheduling Coordinator to validate that the resource qualifies for the requested status and that all the requisite information has been successfully provided to the CAISO. The resource will be successfully registered

and qualified as a Multi-Stage Generating Resource, or the requested changes in the attributes listed in Section 27.8.3 will be successfully registered and qualified as of the date on which the CAISO sends the responsible Scheduling Coordinator a notice that the resource has been successfully qualified as such. In the absence of extenuating circumstances, the ISO will provide such notice on the sixteenth day after the Scheduling Coordinator provides new settings or MSG Configuration details. After the date on which the CAISO has provided such notice, any changes to the items listed in Section 27.8.3 will be subject to the timing and process requirements in this Section 27.8.1 and 27.8.3. The Scheduling Coordinator may modify all other Multi-Stage Generating Resource registered characteristics pursuant to the timing and processing requirements specified elsewhere in this CAISO Tariff, as they may apply. If the CAISO has reason to believe that the resource's operating and technical characteristics are not consistent with the registered and qualified attributes, the CAISO may request that the Scheduling Coordinator provide additional information necessary to support their registered status and, if appropriate, may require that the resource be registered and qualified more consistent with the resource's operating and technical characteristics, including the revocation of its status as a Multi-Stage Generating Resource. Failure to provide such information may be grounds for revocation of Multi-Stage Generating Resource status. Such changes in status or MSG Configuration details would be subject to the registration and qualification requirements in this Section 27.8. Scheduling Coordinators may register the number MSG Configurations as are reasonably appropriate for the resource based on the technical and operating characteristics of the resource, which may not, however, exceed a total of ten MSG Configurations and cannot be fewer than two MSG Configurations. The information requirements specified in Section 27.8.2 will apply.

27.8.2 Information Requirements

As part of the registration process described in Section 27.8.1, ~~the~~ Scheduling Coordinators for Generating Units ~~registering that seek to qualify~~ as Multi-Stage Generating Resources must submit to the CAISO a Transition Matrix, which contains the Transition Costs and operating constraints associated with MSG Transitions. The Scheduling Coordinator may register up to six (6) MSG Configurations without any limitation on the number of transitions between the registered MSG Configurations in the Transition Matrix. If the Scheduling Coordinator registers seven (7) or more MSG Configurations, then the Scheduling Coordinator may only include two (2) eligible transitions between MSG Configurations for

upward and downward transitions, respectively, starting from the initial MSG Configuration in the Transition Matrix. For each MSG Configuration, the responsible Scheduling Coordinator shall submit an Operational Ramp Rate and, as applicable, an Operating Reserve Ramp Rate and Regulating Reserves ramp rate, each of which shall have at least one (1) segment and no more than two (2) segments. The Scheduling Coordinator may submit changes to this information consistent with Sections 27.8.1 and 27.8.3, as they may apply.

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27.13 Aggregate Capability Constraint

At the request of the Interconnection Customer or Pseudo-Tie Generating Facility, the CAISO may enforce an Aggregate Capability Constraint for Generating Facilities with Co-located Resources that reflects a Generating Facility's maximum and minimum capability or a portion of that capability for purposes of Day-Ahead Market Awards, Real-Time Market Awards, and Real-Time Dispatch as described in the CAISO's Business Practice Manuals. If the combined PMax of Co-located Resources associated with a single Generating Facility would exceed the Interconnection Service Capacity of that Generating Facility, the Interconnection Customer may request that the CAISO enforce an Aggregate Capability Constraint or multiple Aggregate Capability Constraints at the Generating Facility as described in the CAISO's Business Practice Manuals. If the Interconnection Customer requests that the CAISO enforce multiple Aggregate Capability Constraints, the CAISO will enforce an Aggregate Capability Constraint at the Generating Facility level and subordinate Aggregate Capability Constraints at the level of Resource IDs.

If the Interconnection Customer does not elect an Aggregate Capability Constraint(s), the combined PMax of the Co-located Resources registered in the Master File for that Generating Facility may not exceed the Generating Facility's Interconnection Service Capacity. EIM Participating Resource Scheduling Coordinators also may request that the CAISO enforce an Aggregate Capability Constraint or multiple Aggregate Capability Constraints for Co-located Resources, subject to the prior written approval of the applicable EIM Entity Balancing Authority that enforcing an Aggregate Capability Constraint(s) for

Co-located Resources does not create a threat to safety or reliability.

As described in the CAISO's Business Practice Manuals the CAISO may relax enforcement of subordinate Aggregate Capability Constraints in its Real-Time Market prior to relaxing enforcement of the system energy-balance constraint specified in Sections 27.4.3.3.4 to ensure there is sufficient Supply to meet the CAISO Forecast of CAISO Demand.

Notwithstanding Section 34.13, a Generating Facility whose Co-located Resources, including Variable Energy Resources, do not comply with Dispatch Instructions such that their output exceeds the Interconnection Service Capacity of the Generating Facility, will be ineligible for the Aggregate Capability Constraint. In such cases, the CAISO will adjust the PMaxes of those Co-located Resources proportionate to each Generating Unit's capacity such that the sum of the PMax values equals the Interconnection Service Capacity of the Generating Facility, or as requested by the Interconnection Customer so long as the total value does not exceed the Interconnection Service Capacity of the Generating Facility.

Similar to other Generating Facilities with multiple Resource IDs, the CAISO will have no liability with respect to Co-located Resources or their Scheduling Coordinators if Co-located Resources do not comply with Dispatch Instructions and infringe on Interconnection Service Capacity used by other Co-located Resources at a Generating Facility.

In the event that Co-located Resources in an EIM Entity Balancing Authority area do not comply with Dispatch Instructions such that their output exceeds the interconnection service capacity for the Co-located Resources, the CAISO will ask the applicable EIM Entity Balancing Authority whether it will revoke its prior approval of enforcing the Aggregate Capability Constraint for such Co-located Resources. The following resources are not eligible to use the Aggregate Capability Constraint: Multi-Stage Generators, Proxy Demand Response, Pumped Storage Hydro Units, Metered Subsystems, and Use-Limited Resources.

~~Scheduling Coordinators may not offer or self provide Ancillary Services into the CAISO's Markets or receive Uncertainty Awards from Generating Units that are subject to Aggregate Capability Constraints until the CAISO issues a Market Notice stating this restriction will no longer apply.~~ The Pricing Node for the Generating Units or EIM Participating Resources subject to an Aggregate Capability Constraint will be

their Point of Interconnection.

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Section 31

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31.5.3 RUC Procurement Target

The procurement target for RUC in any given Trading Hour will be determined based on the next day's hourly CAISO Forecast of CAISO Demand less the Energy scheduled in the Day-Ahead Schedule, and accounting for other factors, as appropriate, such as Demand Forecast error and estimated incremental RTM Bids including those from Participating Intermittent Resources. The adjustments listed in Sections 31.5.3.1 to 31.5.3.1.6 will be made to the CAISO Forecast of CAISO Demand to account for the conditions as provided therein. Adjustments may be made on a RUC Zone basis to ensure that RUC results in adequate local capacity procurement. The RUC procurement target setting procedure is designed to meet the requirements of reliable grid operation without unnecessary over-procurement of RUC Capacity or over-commitment of resources. Additional detail on the process for setting the RUC procurement target is specified in the Business Practice Manuals.

31.5.3.1 CAISO Operator Review & Adjustment

The CAISO Operator reviews the CAISO Forecast of CAISO Demand and all calculated adjustments as provided in Sections 31.5.3.1.1 through 31.5.3.1.6. The CAISO Operator ~~may~~shall accept, modify, or reject such adjustments based on Good Utility Practice. If the CAISO Operator determines it must modify the CAISO Forecast of CAISO Demand, the CAISO Operator shall log sufficient information as to reason, Operating Hour, and specific modification(s) made to the CAISO Forecast of CAISO Demand.

31.5.3.1.1 RUC Net Short Conditions

The CAISO Operator may conform the CAISO Forecast of CAISO Demand in the event the CAISO Operator has determined that additional capacity may need to be procured in RUC to meet anticipated Real-Time system conditions. The CAISO Operator will consider factors such as: CAISO Forecast of CAISO Demand error; weather pattern that is expected to continue or change within the next Trading

Day; generator outage resulting in different Supply availability than was bid into the Day-Ahead Market; fire that threatens transmission lines and/or corridors; the expectation that the amount of Generation committed in the IFM will not be sufficient to meet the anticipated Demand; and Reliability Coordinator next-day analysis of system conditions.

31.5.3.1.2 Demand Response Adjustments.

The CAISO ~~may adjust the CAISO Forecast of CAISO Demand to~~shall account for Demand response that is clearly communicated to the CAISO as certain to be curtailed for the next Trading Day. Such adjustments may be made only for the two following types of Demand response: (1) Demand response triggered by a staged System Emergency event; and (2) Demand response that is triggered by a price or an event known in advance. If an LSE informs the CAISO of anticipated Demand response prior to Market Close of the DAM, the CAISO Forecast of CAISO Demand used as the RUC procurement target will be reduced accordingly.

31.5.3.1.3 MSS Adjustment

As specified in section 31.5.2.1, MSS Operators are permitted to make an annual election to opt-in or opt-out of RUC participation. If the MSS Operator opts-in to the RUC procurement process, the CAISO considers the CAISO's Demand Forecast of the MSS Demand in setting the RUC procurement target. If an MSS Operator opts-out of the RUC procurement process, the CAISO does not consider the CAISO's Demand Forecast of the MSS Demand in setting the RUC procurement target. An MSS Operator that has elected to opt-out of RUC, or has elected to Load follow and therefore has also elected to opt-out of RUC, is required to provide sufficient resources in the Day-Ahead Market, and in the case of a Load following MSS Operator, follow its Load within the MSS Deviation Band. To reflect these options and to prevent committing additional capacity or resources for any differences between the CAISO Demand Forecast for the MSS and the MSS Self-Scheduled quantities in the IFM, the CAISO replaces the CAISO Demand Forecast for such MSS with the quantity of Demand in Self-Schedules submitted by the Scheduling Coordinator for the MSS in the IFM.

31.5.3.1.4 Eligible Intermittent Resource Adjustment

Scheduling Coordinators for Eligible Intermittent Resources may submit Bids, including Self-Schedules, in the Day-Ahead Market and the quantity ultimately scheduled from Eligible Intermittent Resources may

differ from the CAISO forecasted deliveries from the Eligible Intermittent Resources. The CAISO may adjust the forecasted Demand either up or down for such differences by RUC Zone in which the Eligible Intermittent Resource resides. If the EIR's expected output participating in the Day-Ahead Market, as reflected in the EIR's Bid, including a Self-Schedule, or lack thereof, is less than CAISO's forecast of the EIR, the CAISO may make a Supply-side adjustment to the resource's expected output by using the CAISO's forecast of the EIR. If on the other hand, the EIR's expected output participating in the Day-Ahead Market, as reflected in the EIR's Bid, including a Self-Schedule, or lack thereof, is greater than the CAISO's forecast of the EIR, the CAISO may make a Demand side adjustment to the RUC Zone Demand equal to the difference between the EIR's Day-Ahead Schedule and the CAISO forecasted quantity.

31.5.3.1.5 Real-Time Expected Incremental Supply Self-Schedule Adjustment

In order to avoid over procurement of RUC, the CAISO mayshall, using a similar-day approach, estimate the RTM Self-Schedules for resources that usually submit RTM Self-Schedules that are greater than their Day-Ahead Schedules. The CAISO Operator may set the length of the Self-Schedule moving average window. Initially this moving average window shall be set by default to seven (7) days; in which case the weekday estimate is based on the average of five (5) most recent weekdays and the weekend estimate is based on the average of the two (2) most recent weekend days. To the extent weather conditions differ significantly from the historical days, additional adjustment may be necessary. After determining the estimate of Real-Time Self-Schedules, using a similar day forecasting approach, the CAISO may adjusts the CAISO Forecast of CAISO Demand of a RUC Zone based on the forecasted quantity changes in Supply as a result of Self-Schedules submitted in the RTM. This adjustment for forecasted Real-Time Self-Schedules may result in positive or negative adjustments. Demand adjustments to the CAISO Forecast of CAISO Demand result when there is a net forecast decrease in Real-Time Self-Schedule Supply relative to the Day-Ahead Schedule Supply. Supply adjustments to the individual resources occur when there is a net forecast increase in Real-Time Self-Schedule Supply relative to the Day-Ahead Schedule Supply of the individual resource.

31.5.3.1.6 Day-Ahead Ancillary Service Procurement Deficiency Adjustment

While the CAISO intends to procure one hundred percent (100%) of its forecasted Operating Reserve requirement in the IFM based on the CAISO Forecast of CAISO Demand as specified in Section 8.3.1,

the CAISO ~~may~~shall make adjustments to the CAISO Forecast of CAISO Demand used in RUC to ensure sufficient capacity is available or resources committed in cases that the CAISO is unable to procure one hundred percent (100%) of its forecasted Operating Reserve requirement in the IFM; provided, however, that the CAISO shall not procure specific Ancillary Services products in RUC, nor will the RUC optimization consider AS-related performance requirements of available capacity.

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Section 34

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34.18.2.4 Voltage Support

- ~~(a) Voltage Support provided from Generating Units shall meet the standards specified in this CAISO Tariff and Part E of Appendix K.~~
- (ab) The CAISO may Dispatch Generating Units to increase or decrease MVar output within power factor limits established pursuant to Section 8.2.3.3 (or within other limits specified by the CAISO in any exemption granted pursuant to Section 8.2.3.3) at no cost to the CAISO when required for System Reliability.
- (be) The CAISO may Dispatch each Generating Unit to increase or decrease MVar output outside of established power factor limits, but within the range of the Generating Unit's capability curve, at a price calculated in accordance with the CAISO Tariff.
- (ce) If Voltage Support is required in addition to that provided pursuant to Section 34.18.2.4 (ab) and (be), the CAISO will reduce output of Participating Generators ~~certified in accordance with Appendix K.~~ The CAISO will select Participating Generators in the vicinity where such additional Voltage Support is required.
- (de) The CAISO will monitor voltage levels at Interconnections to maintain them in accordance with the applicable inter-Balancing Authority Area agreements.

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Section 40

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40.2.2.4 Annual and Monthly Resource Adequacy Plans

The Scheduling Coordinator for a Non-CPUC Load Serving Entity or a CPUC Load Serving Entity subject to Section 40.2.1(b), or a CPE must provide annual and monthly Resource Adequacy Plans for such Load Serving Entity or CPE, as follows:

- (a) Each annual Resource Adequacy Plan must be submitted to the CAISO on a schedule and in the reporting format(s) set forth in the Business Practice Manual. The annual Resource Adequacy Plan must, at a minimum, set forth the Local Capacity Area Resources, if any, procured by the Load Serving Entity or CPE as described in Section 40.3, and may identify a Local Capacity Area Resource as Listed Local RA Capacity.
- (b) Each monthly Resource Adequacy Plan or the same information as required to be included in the monthly Resource Adequacy Plan, plus any other information the CAISO requires as identified in the Business Practice Manual, must be submitted to the CAISO at least 45 days in advance of the first day of the month covered by the plan, and in accordance with the schedule and in the reporting format(s) set forth in the Business Practice Manual. For Load Serving Entities, the monthly Resource Adequacy Plan must identify all resources, including Local Capacity Area Resources, the Load Serving Entity will rely upon to satisfy the applicable month's peak hour Demand of the Load Serving Entity as determined by the Demand Forecasts developed in accordance with Section 40.2.2.3 and applicable Reserve Margin. For CPEs, the monthly Resource Adequacy Plan must identify all Local Capacity Area Resources the CPE will rely upon to satisfy its Local Capacity Area Resource obligation. For each Local Capacity Area Resource identified on a monthly Resource Adequacy Plan, the Load Serving Entity or CPE also may identify RA Capacity from such resource as Listed Local RA Capacity. Resource Adequacy Plans must utilize the Net Qualifying Capacity requirements of Section 40.4. A Load Serving Entity is not obligated to commit a type of RA capacity on a monthly

Resource Adequacy Plan if it holds a monthly obligation of less than 1 MW for that type of RA capacity but is not exempt from committing any other type of RA capacity for that month for which it holds a monthly obligation of 1 MW or greater and is not exempt for any relevant cost allocation from a CPM designation made pursuant to Section 43A associated with a monthly RA capacity obligation of less than 1 MW.

- (c) The Scheduling Coordinator for a Load Serving Entity or CPE may submit at any time from 45 days through 30 days in advance of the relevant month, a revision to its monthly Resource Adequacy Plan to correct either: (i) a discrepancy between its monthly Resource Adequacy Plan and the monthly Supply Plan of a Resource Adequacy Resource providing that Load Serving Entity or CPE with Resource Adequacy Capacity, as provided in Section 40.7(b); or (ii) a deficiency in how much Resource Adequacy Capacity was provided on the monthly Resource Adequacy Plan. From 45 days through 30 days in advance of the relevant month, the Scheduling Coordinator for a Load Serving Entity or CPE also may revise its Resource Adequacy Plan voluntarily either to add additional Resource Adequacy Capacity or remove Resource Adequacy Capacity regardless of a discrepancy or deficiency that existed as of 45 days in advance of the relevant month. The CAISO will not accept any revisions to a monthly Resource Adequacy Plan from 30 days in advance of the relevant month through the end of the month, unless the Scheduling Coordinator for the Load Serving Entity or CPE demonstrates good cause for the change and explains why it was not possible to submit the change earlier.
- (d) The Scheduling Coordinator for the Load Serving Entity or CPE that submits a revision to its monthly Resource Adequacy Plan to correct a deficiency or discrepancy must include in the revision a MW amount of Resource Adequacy Capacity for each day of the month that is no less than the MW amount of Resource Adequacy Capacity included in its original plan for each day of the month.

40.4.3 General Qualifications for Supplying Net Qualifying Capacity

Resource Adequacy Resources included in a Resource Adequacy Plan submitted by a Scheduling Coordinator on behalf of either a Load Serving Entity serving Load in the CAISO Balancing Authority Area or a CPE must:

- (1) Be available for testing by the CAISO to validate Qualifying Capacity, which can be no less than a resource's PMin as registered in the Master File even if the resource's contractual Resource Adequacy Capacity is less than its PMin, and determine Net Qualifying Capacity for the next Resource Adequacy Compliance Year;
- (2) Provide any information requested by the CAISO to apply the performance criteria to be adopted by the CAISO pursuant to Section 40.4.5;
- (3) Submit Bids into the CAISO Markets as required by this CAISO Tariff;
- (4) Be in compliance, as of the date that the CAISO performs any testing or otherwise determines Net Qualifying Capacity for the next Resource Adequacy Compliance Year, with the criteria for Qualifying Capacity established by the CPUC, relevant Local Regulatory Authority, or federal agency and provided to the CAISO; ~~and~~
- (5) Be subject to Sanctions for non-performance as specified in the CAISO Tariff; ~~and~~
- (6) For a resource with contractual Resource Adequacy Capacity less than PMin as registered in the Master File, make the PMin available to the CAISO for commitment or dispatch at PMin, subject to Section 11.8 provisions for Bid Cost Recovery, so that the resource's Resource Adequacy Capacity can be utilized as required by this CAISO Tariff; ~~and~~
- (7) For a resource with contractual Resource Adequacy Capacity falling in a Forbidden Operating Region or between two MSG Configurations, make available to the CAISO for commitment or dispatch the capacity falling at the upper bound of the Forbidden Operation Region or the lower bound of MSG Configuration above the RA capacity, respectively, subject to Section 11.8 provisions for Bid Cost Recovery, so that the resource's Resource Adequacy Capacity can be utilized as required by this CAISO Tariff.

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40.4.6.2.2.1 ~~[Not Used]~~ Eligibility Registration for Bilateral Import Capability Transfers

~~To be eligible to engage in any bilateral assignment, sale, or transfer of Remaining Import Capability under Step 8 of Section 40.4.6.2.1 or Section 40.4.6.2.2.2 or transfer of Existing Contract Import Capability, Pre-RA Import Commitment Capability and New Use Import Commitment Capability under Section 40.4.6.2.2.2, a Load Serving Entity or other Market Participant must provide the CAISO through the Import Capability Transfer Registration Process the following information:~~

~~(a) — Name of the Load Serving Entity or Market Participant~~

~~(b) — E-mail contact information~~

~~The CAISO will post to the CAISO Website the information received under this Section on a monthly basis in accordance with the schedule set forth in the Business Practice Manual. Any assignment, sale, or transfer of Existing Contract Import Capability, Pre-RA Import Commitment Capability, New Use Import Commitment Capability or Remaining Import Capability may only be made by or to a Load Serving Entity or Market Participant whose information received under this Section has been posted to the CAISO Website prior to the date of the assignment, sale, or transfer of the Existing Contract Import Capability, Pre-RA Import Commitment Capability, New Use Import Commitment Capability or Remaining Import Capability. It shall be the exclusive responsibility of the Scheduling Coordinator for the Load Serving Entity or Market Participant to ensure that the information posted to the CAISO Website under this Section is accurate and up to date.~~

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40.4.7.1 Schedule for Submission of Supply Plans

Scheduling Coordinators representing Resource Adequacy Resources supplying Resource Adequacy Capacity shall provide the CAISO with annual and monthly Supply Plans, as follows:

(a) The annual Supply Plan shall be submitted to the CAISO on the schedule set forth in the

Business Practice Manual and shall verify their agreement to provide Resource Adequacy Capacity during the next Resource Adequacy Compliance Year. The annual Supply Plan may identify a Local Capacity Area Resource as Listed Local RA Capacity.

- (b) The monthly Supply Plans or the same information as required to be included in the monthly Supply Plan, plus any other information the CAISO requires as identified in the Business Practice Manual, shall be submitted to the CAISO at least 45 days in advance of the first day of the month covered by the plan, and in accordance with the schedule and in the reporting format(s) set forth in the Business Practice Manual, and shall verify their agreement to provide Resource Adequacy Capacity during that resource adequacy month. The monthly Supply Plan may identify a Local Capacity Area Resource as Listed Local RA Capacity. Provided, however, that a Scheduling Coordinator may submit an initial Supply Plan from 45 days through 30 days in advance of the relevant month if: (i) the Resource Adequacy Capacity on the initial Supply Plan was procured by a Scheduling Coordinator for a Load Serving Entity or CPE to resolve a deficiency; (ii) the initial Supply Plan is submitted to resolve a discrepancy that arose based on a Resource Adequacy Plan revision made to add additional Resource Adequacy Capacity voluntarily; or (iii) the initial Supply Plan solely includes a resource or resources that received an initial Net Qualifying Capacity value between 45 days through 30 days in advance of the relevant month.
- (c) The Scheduling Coordinator for the Resource Adequacy Resource may submit, at any time from 45 days through 30 days in advance of the relevant month, a revision to its monthly Supply Plan to correct a discrepancy between its monthly Supply Plan and a Resource Adequacy Plan of a Load Serving Entity or CPE. Such revision may be to address a discrepancy that existed as of the initial plan submissions by 45 days in advance of the relevant month or to address a discrepancy that arose between 45 days through 30 days in advance of the relevant month. A Scheduling Coordinator also may revise a monthly Supply Plan at any time from 45 days through 30 days in advance of the relevant month to remove Resource Adequacy Capacity from the Supply Plan for which

~~that Resource Adequacy Resource is providing Resource Adequacy Capacity, as provided in Section 40.7(b).~~ The CAISO will not accept any revisions to a monthly Supply Plan from 30 days in advance of the relevant month through the end of the month, unless the Scheduling Coordinator for the Resource Adequacy Resource demonstrates good cause for the change and explains why it was not possible to submit the change earlier.

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40.7 Compliance

The CAISO will evaluate Resource Adequacy Plans and Supply Plans as follows:

- (a) The CAISO will evaluate whether each annual and monthly Resource Adequacy Plan submitted by a Scheduling Coordinator on behalf of a Load Serving Entity or CPE demonstrates Resource Adequacy Capacity sufficient to satisfy the Load Serving Entity's or CPE's (i) allocated responsibility for Local Capacity Area Resources under Section 40.3.2 and (ii) applicable Demand and Reserve Margin requirements. The CAISO will evaluate compliance with the responsibility for demonstrating Local Capacity Area Resources in two phases. Phase 1 of the Local Capacity Area Resource sufficiency evaluation will be made without regard to capacity's identification as Listed Local RA Capacity. Phase 2 of the Local Capacity Area Resource sufficiency evaluation will consider capacity to be a Local Capacity Area Resource only if it is also Listed Local RA Capacity. If the CAISO determines through the Phase 1 analysis that a Resource Adequacy Plan does not demonstrate Local Capacity Area Resources sufficient to meet its allocated responsibility under Section 40.3.2, compliance with applicable Demand and Reserve Margin requirements, or compliance with any other resource adequacy requirement in this Section 40 or adopted by the CPUC, Local Regulatory Authority, or federal agency, as applicable, then the CAISO will notify the relevant Scheduling Coordinator, CPUC, Local Regulatory Authority, or federal agency with jurisdiction over

the relevant Load Serving Entity or CPE. In the case of a discrepancy between Resource Adequacy Plan(s) and initial Supply Plan(s), the CAISO will notify the relevant Scheduling Coordinators in an attempt to resolve any deficiency in accordance with the procedures set forth in the Business Practice Manual. The notification will be made at least 40 days in advance of the first day of the month covered by the plan and will include the reasons the CAISO believes a deficiency exists. If the deficiency relates to the demonstration of Local Capacity Area Resources in a Load Serving Entity's or CPE's annual Resource Adequacy Plan, and the CAISO does not provide a written notice of resolution of the deficiency as set forth in the Business Practice Manual, the Scheduling Coordinator for the Load Serving Entity or CPE may demonstrate that the identified deficiency is cured by submitting a revised annual Resource Adequacy Plan within thirty (30) days of the beginning of the Resource Adequacy Compliance Year. For all other identified deficiencies, other than an insufficiency identified through Phase 2 of the Local Capacity Area Resource sufficiency evaluation, at least 30 days prior to the effective month of the relevant Resource Adequacy Plan, the Scheduling Coordinator for the Load Serving Entity or CPE shall: (i) demonstrate that the identified deficiency is cured by submitting a revised Resource Adequacy Plan; or (ii) advise the CAISO that the CPUC, Local Regulatory Authority, or federal agency, as appropriate, has determined that no deficiency exists. If, after providing any needed opportunity to resolve identified discrepancies as required by Section 40.7(b), the CAISO identifies an insufficiency through Phase 2 of the Local Capacity Area Resource sufficiency evaluation, then the CAISO may notify the relevant Local Regulatory Authority of the insufficiency.

- (b) In the case of a discrepancy between Resource Adequacy Plan(s) and Supply Plan(s), if resolved, the relevant Scheduling Coordinator(s) must provide the CAISO with revised Resource Adequacy Plan(s) or Supply Plans, as applicable, at least 30 days prior to the effective month. If the CAISO is not advised that the deficiency or discrepancy is resolved at least 30 days prior to the effective month, the CAISO will use the information contained in the Supply Plan to set the obligations of Resource Adequacy Resources

under this Section 40 and/or to assign any costs incurred under this Section 40 and Section 43A.

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40.10.5.1 LSE Flexible RA Capacity Plans

- (a) **Submission Requirement.** A Scheduling Coordinator must submit annual and monthly LSE Flexible RA Capacity Plans for each Load Serving Entity it represents.
- (b) **Annual Plan.** Each annual LSE Flexible RA Capacity Plan must –
 - (1) demonstrate that the Load Serving Entity has procured for each month at least 90 percent of the annual Flexible RA Capacity requirement determined by the CAISO; or the amount of Flexible RA Capacity required by the Load Serving Entity's Local Regulatory Authority, if the Local Regulatory Authority has set such requirement;
 - (2) identify the resources the Load Serving Entity intends to rely on to provide the Flexible RA Capacity, but need not identify the flexible resource adequacy categories; and
 - (3) include all information and be submitted no later than the last Business Day in October, in accordance with the reporting requirements and schedule set forth in the Business Practice Manual.
- (c) **Monthly Plan.** The monthly LSE Flexible RA Capacity Plan must –
 - (1) demonstrate that the Load Serving Entity procured 100 percent of the total monthly Flexible RA Capacity requirement determined by the CAISO; or the monthly amount of Flexible RA Capacity required by the Local Regulatory Authority, if the Local Regulatory Authority has set such requirement;
 - (2) include information for purposes of the validation under Section 40.10.5.3(a) and the evaluation for cumulative deficiency under Section 40.10.5.3(c) that shows the MW of Flexible RA Capacity the Load Serving Entity designates based on the

total monthly requirement determined by the CAISO within the minimum or maximum quantity, as applicable, for each Flexible Capacity Category; or only if the Local Regulatory Authority has established its own flexible capacity requirement, shows the MW of Flexible RA Capacity the Load Serving Entity designates based on the total monthly requirement determined by the Local Regulatory Authority within the minimum or maximum quantity for each Flexible Capacity Category required by the Local Regulatory Authority, if applicable;

- (3) identify all resources the Load Serving Entity will rely on to provide the Flexible RA Capacity and for each resource specify the Flexible Capacity Category in which the Flexible RA Capacity will be provided; and
- (4) include all information and be submitted to the CAISO at least 45 days in advance of the first day of the month covered by the plan, in accordance with the reporting requirements and schedule set forth in the Business Practice Manual.

- (d) **Correction to Monthly Plan.** The Scheduling Coordinator for the Load Serving Entity may submit at any time from 45 days through 30 days in advance of the first day of the month covered by the plan, a revision to its monthly LSE Flexible RA Capacity Plan to correct either: (i) a discrepancy between its monthly LSE Flexible RA Capacity Plan and the monthly Supply Plan of a Resource Adequacy Resource providing that Load Serving Entity with Flexible RA Capacity; or (ii) a deficiency in how much Flexible RA Capacity was provided on the monthly LSE Flexible RA Capacity Plan. From 45 days through 30 days in advance of the relevant month, the Scheduling Coordinator for a Load Serving Entity also may revise its LSE Flexible RA Capacity Plan voluntarily either to add additional Flexible RA Capacity or remove Flexible RA Capacity regardless of a discrepancy or deficiency that existed as of 45 days in advance of the relevant month.

The CAISO will not accept any revisions to a monthly LSE Flexible RA Capacity Plan from 30 days in advance of the relevant month through the end of the month, unless the Scheduling Coordinator for the Load Serving Entity demonstrates good cause for the change and explains why it was not possible to submit the change earlier.

- (e) **Reporting Exemption.** Notwithstanding the above, a Load Serving Entity is not obligated to submit a monthly LSE Flexible RA Capacity Plan for a given month if the Load Serving Entity's contribution to the three-hour net load ramp is less than 1 MW for that month. Except to the extent allowed under section 43A.8.8(e), such Load Serving Entity is not exempt for any relevant cost allocation from a CPM designation made pursuant to Section 43A associated with a monthly RA capacity obligation of less than 1 MW.

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40.10.5.2 Resource Flexible RA Capacity Plans

- (a) **Submission Requirement.** A Scheduling Coordinator must submit annual and monthly Resource Flexible RA Capacity Plans for each resource it represents that provides Flexible RA Capacity; except that an annual plan is not required for 2015.
- (b) **Annual Plan.** The annual Resource Flexible RA Capacity Plan shall --
- (1) verify the resource's agreement to provide Flexible RA Capacity during the next Resource Adequacy Compliance Year; and
 - (2) include all information and be submitted no later than the last Business Day in October, in accordance with the reporting requirements and schedule set forth in the Business Practice Manual.
- (c) **Monthly Plan.** The monthly Resource Flexible RA Capacity Plan shall --
- (1) verify the resource's agreement to provide Flexible RA Capacity during the month;
 - (2) include an affirmative representation by the Scheduling Coordinator submitting the plan that the CAISO is entitled to rely on the accuracy of the information provided in the plan to perform those functions set forth in this Section 40; and
 - (3) include all information and be submitted to the CAISO at least 45 days in advance of the first day of the month covered by the plan, in accordance with the

reporting requirements and schedule set forth in the Business Practice Manual, provided that a Scheduling Coordinator may submit an initial monthly Resource Flexible RA Capacity Plan between 45 days through 30 days in advance of the relevant month if: (i) the Flexible RA Capacity on the initial Flexible RA Capacity Plan was procured by a Scheduling Coordinator for a Load Serving Entity to resolve a deficiency; (ii) the initial Resource Flexible RA Capacity Plan is submitted to resolve a discrepancy that arose based on a LSE Flexible RA Capacity Plan revision made to add additional Flexible RA Capacity voluntarily; or (iii) the initial Resource Flexible RA Capacity Plan solely includes a resource or resources that received an initial Effective Flexible Capacity value between 45 days through 30 days in advance of the relevant month.

- (d) **Correction to Monthly Plan.** The Scheduling Coordinator for the Resource Adequacy Resource may, at any time from 45 days through 30 days in advance of the relevant month, revise its monthly Flexible RA Capacity Plan to correct a discrepancy between its monthly Flexible RA Capacity Plan and a Resource Adequacy Plan of a Load Serving Entity for which that Resource Adequacy Resource is providing Flexible RA Capacity. Such revision may be to address a discrepancy that existed as of the initial plan submissions by 45 days in advance of the relevant month or to address a discrepancy that arose between 45 days through 30 days in advance of the relevant month. The CAISO will not accept any revisions to a monthly Flexible RA Capacity Plan less than 30 days in advance of the relevant month through the end of the month, unless the Scheduling Coordinator for the Resource demonstrates good cause for the change and explains why it was not possible to submit the change earlier.

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Appendix A

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- MSG Configuration

A qualified and registered operating mode of a Multi-Stage Generating Resource, with a distinct set of operating characteristics such that only one such MSG Configuration can be operated in any given Dispatch Interval. All MSG Configurations for Multi-Stage Generating Resources are operable on-line modes.

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- Multi-Stage Generating Resources

~~A Generating Unit that for reasons related to its technical characteristics can be operated in various MSG Configurations such that only one such MSG Configuration can be operated in any given Dispatch Interval. In addition, subject to the requirements in Section 27.8, the following technical characteristics qualify a~~ Generating Unit ~~is as~~ a Multi-Stage Generating Resource if ~~it the resource~~: (1) is a combined cycle resource, excluding those that are one-by-one combined cycle resources without bypassing, duct firing capability or power augmentation capability; (2) has more than one Forbidden Operating Region; (3) has multiple operating modes, including Regulating Ranges associated with different Ancillary Services capability; ~~or~~ (4) has hold times before or after a Transition through a Forbidden Operating Region; or (5) any other resource that has multiple operating modes such that only one of those modes can be operated in any given Dispatch Interval. For the purposes of item (4), a hold time is an operational restriction that requires the resource to stay in or out of a specific operating mode for a given period of time, derived from the physical characteristics registered in the Master File for the resource, which may be in the form of a requirement that the resource stay in a particular operating mode for a period of time once it is in, or that the resource must stay out of a particular operating mode for a period of time once it is out of that operating mode. Notwithstanding the above, by definition Metered Subsystems in their entirety, Pumped-Storage Hydro Units, ~~and~~ Pumping Loads, Non-Generator Resources, and System Resources are not ~~not qualify as~~ Multi-Stage Generating Resources ~~and therefore cannot register as such as provided in Section 27.8. Regulatory Must-Take Resources are not required to be registered as Multi-Stage Generating Resources. Dispatchable Qualifying Facilities that are not qualified as Regulatory Must-Take~~

~~resources are required to register as Multi-Stage Generating Resources, provided they meet the qualifying technical characteristics described above.~~

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- Pump Shut-Down Costs

A Bid Component submitted by Scheduling Coordinators for resources that are registered as a Participating Load that indicates the \$/~~MWh~~shutdown that the Scheduling Coordinator is willing to be paid to not pump.

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